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ANNUAL REPORT

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WILSON T. SOWDER, M.D.
STATE HEALTH OFFICER
JACKSONVILLE 1, FLORIDA

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49th Annual Report

STATE BOARD OF HEALTH

State of Florida

1948

The following statistical reports will be published separately:

SUPPLEMENTAL I — FLORIDA VITAL STATISTICS, 1948

SUPPLEMENTAL II — FLORIDA MORBIDITY STATISTICS, 1948

WILSON T. SOWDER, M.D.

STATE HEALTH OFFICER

JACKSONVILLE, FLORIDA

His Excellency, FULLER WARREN
Governor of Florida
Tallahassee, Florida

SIR:

I beg to hand you herewith a report of the Florida State Board of Health for the period January 1, 1948, to December 31, 1948, inclusive.

Respectfully submitted,

HERBERT L. BRYANS, M.D.
President

August 30, 1949
Pensacola, Florida

The Honorable HERBERT L. BRYANS, M.D., President
Florida State Board of Health
Pensacola, Florida

Dear Dr. Bryans:

I herewith submit the forty-ninth annual report of the Florida State Board of Health for the year ending December 31, 1948.

Sincerely yours,

WILSON T. SOWDER, M.D.
State Health Officer

August 30, 1949
Jacksonville, Florida

Members of the
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Division of Dental Health.....George A. Dame, M.D.

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Division of Industrial Hygiene.....John M. McDonald, M.D.
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Division of Entomology.....John A. Mulrennan

Bureau of Vital Statistics.....Everett H. Williams, Jr.

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Purchasing Agent.....G. Wilson Baltzell

Bureau of Narcotics.....Marshall H. Doss

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and Services.....Walter Wilkins, M.D., Ph.D.

Division of Health Information.....Elizabeth Reed (Acting)
Jess Wheeler (In temporary charge)

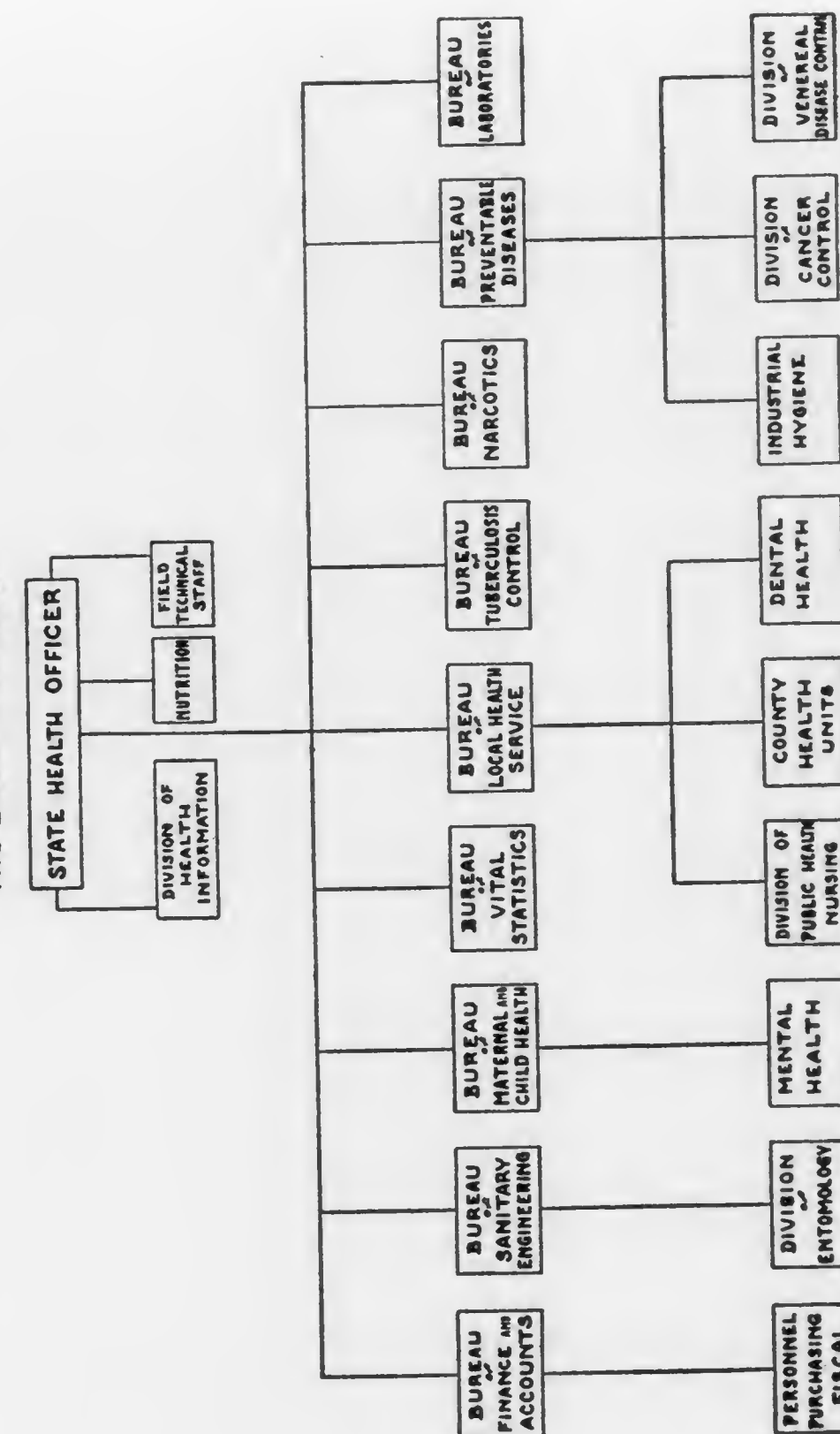
Field Technical Staff.....L. L. Parks, M.D., M.P.H.

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| | |
|--|--------------------------------------|
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| Volusia..... | R. D. Higgins, M.D., M.P.H. |

FLORIDA STATE BOARD OF HEALTH

GOVERNOR OF FLORIDA
FIVE BOARD MEMBERS



FOREWORD

The following pages reveal, in detail, the record of the past year. But for those who would like to quickly peruse our major accomplishments and problems in the field of public health—

Nutrition work goes on apace, especially among the school children. This is due largely to the cooperation of lunchroom workers and teachers all over the state.

Tuberculosis control's main activity was the mass x-ray survey—20% of Florida's people were examined. The tuberculosis death rate of 29.1 per 100,000 population was the lowest on record in this state. This was lower than any other southeastern state. Much credit for this excellent record is due to the excellent efforts of the state and county Tuberculosis and Health Associations.

Preventable diseases: a public health veterinarian was added to the staff. Typhus fever shows a marked decrease. 1,503 cases of cancer were approved for state aid.

Sanitary engineering: for those who read national picture magazines, it will come as no surprise that our major project has been the abatement of pollution of underground and surface waters.

Entomology: malaria continued to decline on the basis of reported cases, although there was a slight increase in reported deaths. Progress was made in the control of all insect-borne diseases.

Maternal and child health: emphasis was again placed on services in migrant labor areas. 16 recent medical graduates worked in 25 county health units, doing school health examinations and immunizations. A study of midwives showed that approximately half were 60 years of age or over. A program was established to train younger women in this profession. Infant and maternal death rates continued to decline and the 1948 rates were the lowest on record in this state. However, they are still considerably higher than the national average.

Mental health: four mental health clinics were established throughout the state and one study program was undertaken in Volusia County.

Local health service: Palm Beach and Citrus Counties were added to the list of accredited county health departments, leaving only Collier, Lee, Martin, St. Johns and Hernando. Martin county has levied a millage for matching funds for a health unit and will probably be organized in 1949.

Public health nursing: has had the great problem of coping with an increasing turnover of personnel but this was stabilized somewhat this year.

Dental health: a full-time director was employed at the beginning of the year by the Division of Dental Health. His resignation, however, prevented any appreciable extension of the dental program on the state level.

Laboratory: the amount of work performed substantially exceeded that of any preceding year.

Vital Statistics: a proposed amendment to the Florida Vital Statistics Law was prepared and distributed to members of the state legislature. This amendment would make birth records confidential and protect individuals from unnecessary disclosure of illegitimacy, adoption, or other information on this record which might be embarrassing.

Field Technical staff: acts as a liaison officer in coordinating the work in the state with that of the counties. The staff has limited personnel but continue to do very effective work.

Health information: 45 food handler's programs were conducted in 27 Florida communities. Health Notes, the official monthly publication, is now being mailed to a revised list of 10,000 persons. A Negro health educator was employed and has been loaned to the Jackson County Health Department.

Narcotics: still engaged in the enforcement of all laws in connection with narcotics, medical, and pharmacy laws.

Finance and accounts: the purchasing and property section was added to this Bureau.

We no longer wish to dwell on the events of the past. Rather we look forward to the future.

During the coming year we have hopes of expanding our program as follows:

- LEGISLATION:
1. The amendment to the Vital Statistics Law previously mentioned.
 2. An enabling act to permit the formation of sanitary districts for the purpose of providing water supply, sewerage disposal and garbage collection.
 3. A law for the compulsory vaccination of dogs against rabies.
 4. A law to permit a program for the control of diabetes and to provide funds therefore.
 5. A law to provide for the compulsory isolation of recalcitrant persons with tuberculosis.

In addition to the above we have hopes of securing sufficient funds from the State Legislature for expanding the following programs: School health, dental health, mental health, stream pollution, cancer control, the training of food handlers, and the organization of the remaining counties of the state into county health units. We anticipate the receipt of funds from federal sources for a heart disease control program and for a more active program for the prevention of deaths among prematurely born children.

In this brief summary, the trained eye can detect the thousands of manhours spent by all the personnel in carrying forward new programs and coping with unexpected problems. No mention has been made of routine work, without which we could not function or adequately serve our citizens. Our appreciation is extended, as always, to the hundreds of loyal and outstanding employees of the State Board of Health and the County Health Departments.

WILSON T. SOWDER, M. D.—*State Health Officer*

Edited by
EVERETT H. WILLIAMS, JR.

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BUREAU OF PREVENTABLE DISEASES

R. F. SONDAG, M.D., Director

During the year 1948 morbidity from all important reportable diseases remained at a normal seasonal expectancy or was below median levels.

On January 1, 1948, Dr. J. E. Scatterday, Public Health Veterinarian, was added to the staff of the bureau to expand the control of diseases having their origin in animals. This expanded veterinary public health program was a major activity of the bureau and the first summary of activities is included in this report.

Dr. J. B. Hall, director of the Cancer Control Division, was granted a leave of absence for one year to complete training for his Master's Degree in Public Health. He left during the month of August.

With the exception of Industrial Hygiene and the Veterinary Public Health program, most of the activities of the other divisions within the bureau were carried on by the director.

The reports of the various divisions and field activities under the direction of the Bureau of Preventable Diseases follow.

EPIDEMIOLOGY

R. F. SONDAG, M.D., Director

There were no notable outbreaks of communicable diseases during 1948. The incidence of all important reportable diseases remained about equal to the median figures for the preceding years.

The reporting of cancer showed a marked increase over the preceding year. This merely represents an improvement in the reporting of this disease, as reporting in previous years lagged far behind the mortality from cancer for the state as a whole.

Diphtheria showed a slight increase in cases reported over last year, most of the increase being concentrated in Duval and Hillsborough Counties. This should serve to emphasize the need for increased immunization, as this is a disease against which specific means of protection are available and should be utilized to maximum benefits until the disease has become as rare as smallpox.

There was a considerable increase in the number of enteric infections reported as compared to the previous year. This increase was due to several outbreaks which occurred in various parts of the state. One outbreak, in the Jacksonville Beach area was investigated and the enteric infection was found to be due to *Salmonella* Montevideo. A number of employees and guests at one of the beach hotels were acutely ill for several days from this infection. The same organism was isolated from every individual examined, but the vehicle responsible was not positively identified; however, it was presumed to be due to contaminated unpasteurized cream. Appropriate measures were instituted to avoid a repetition of such an outbreak.

Another outbreak investigated involved 120 students at the Florida State University. This outbreak of Bacillary Dysentery was due to *Shigella* Sonnei, and was investigated by the health officer of Leon County, who determined the vehicle to be contaminated uncooked food in salads prepared in the school cafeteria. The carriers were excluded from the kitchen and placed under observation, after which the epidemic promptly subsided.

There was almost a three-fold increase in the number of infantile diarrhea cases reported in 1948 as compared to the previous year. Approximately half of this increase was due to an epidemic of infantile diarrhea in Miami. This epidemic was thoroughly investigated by the Dade County Health Department, 75 infants being involved, with 11 deaths. It was determined that the outbreak in the hospital was introduced from the outside by the admission of infants with diarrhea needing hospital care. The disease soon spread to the new-born nursery, apparently through faulty technique, injudicious interne and nursing relief, and overcrowding within the nursery itself. At the time of this outbreak, the City of Miami was also having an outbreak of gastro-enteritis in older children.

There was a considerable decrease in the number of influenza cases reported during the year.

Eleven new cases of leprosy were reported, all of whom voluntarily submitted to treatment in the National Leprosarium at Carville, Louisiana.

Of the childhood diseases, measles and mumps particularly, there was a considerable increase in reporting during 1948. This, no doubt, represented better reporting rather than increased incidence as compared to previous years.

The incidence of poliomyelitis was of normal seasonal expectancy, but the hysteria and apprehensions resulting from the epidemic in North Carolina created more headaches for the bureau than the cases occurring in Florida.

Morbidity from typhus fever again showed a marked decrease over the previous year. No cases of rocky mountain spotted fever were reported during 1948. Most of the employees working for the U. S. Forestry Service were immunized against this disease with vaccine supplied by the U. S. Public Health Service.

There was a three-fold increase in the incidence of tetanus, the majority of cases being reported from Duval and Dade Counties. It again must be emphasized that elimination of this disease is dependent upon increased active immunization with tetanus toxoid for those likely to be exposed to infection, reinforced by another injection of toxoid at the time of injury. A person lacking adequate previous immunization should receive 1500 units tetanus anti-toxin given on the day of injury.

New cases of typhoid fever were reported sporadically throughout the year from most sections of the state. There was an increase in the number of typhoid carriers needing surveillance under health department rules and regulations. Many of these carriers migrated here from other states and a carrier file is maintained on them. All carriers are investigated every six months by local health officers. Many carriers moving here from other states voluntarily report to local health departments to subscribe to health department rules and regulations. No known new cases of typhoid fever were the result of typhoid carriers. Most of the new cases of typhoid fever resulted from eating infected shellfish originating from condemned areas.

The diseases reported by counties in Florida during 1948 are shown in Table I.

ANNUAL REPORT, 1948

TABLE I
CASES OF REPORTABLE DISEASES, BY COUNTIES, FLORIDA, 1948 —
AND STATE TOTALS FOR 1946 AND 1947

| COUNTIES | STATE POPULATION 2,477,200 (1948 ESTIMATE) | | Cancer | Chancroid | Chickenpox | Conjunctivitis | Diarrhea | Diphtheria | Dysentery-Ameb. | Dysentery-Bac. | Dysentery-Oth. | Encephalitis-Epi. | Encephalitis-Oth. | Erysipelas | German Measles | Gonorrhea | Granuloma Ing. | Hookworm | Influenza | Jaundice | Lymph. Ven. | Malaria—in U.S. | Malaria—Other | Measles |
|----------------|---|-----|--------|-----------|------------|----------------|----------|------------|-----------------|----------------|----------------|-------------------|-------------------|------------|----------------|-----------|----------------|----------|-----------|----------|-------------|-----------------|---------------|---------|
| | | | | | | | | | | | | | | | | | | | | | | | | |
| TOTAL FOR 1946 | 1,041 | 818 | 959 | 88 | 51 | 361 | 79 | 27 | 18 | 14 | 4 | 59 | 153 | 18,548 | 257 | 3,805 | 227 | 32 | 176 | 459 | 44 | 3,491 | | |
| TOTAL FOR 1947 | 1,025 | 745 | 969 | 84 | 67 | 283 | 59 | 5 | 11 | 4 | 8 | 31 | 64 | 20,160 | 271 | 4,605 | 1,083 | 24 | 216 | 121 | 14 | 1,315 | | |
| TOTAL FOR 1948 | 1,880 | 388 | 1,402 | 93 | 191 | 327 | 153 | 179 | 40 | 5 | 24 | 52 | 56 | 18,820 | 773 | 5,008 | 366 | 66 | 197 | 107 | 4 | 4,802 | | |
| ALACHUA | 38,245 | 4 | 8 | 1 | 1 | 1 | 4 | 5 | | | 1 | | | 548 | 14 | 306 | 1 | 3 | 12 | 12 | | | | |
| BAKER | 6,326 | 10 | 2 | 1 | 1 | 1 | 1 | 1 | | | | | 2 | 563 | 4 | 1 | 4 | 1 | | | | | | |
| BAY | 57,700 | 3 | 3 | 1 | 1 | 1 | 1 | 1 | | | 1 | | | 87 | 2 | 55 | | | | | | | | |
| BRADFORD | 12,000 | 5 | 1 | 1 | 1 | 1 | 1 | 1 | | | 1 | 5 | 3 | 50 | 5 | 55 | 23 | 1 | 5 | 2 | 1 | 14 | | |
| BREVARD | 21,400 | 6 | 8 | 1 | 1 | 1 | 1 | 1 | 6 | 1 | 1 | | | 177 | 7 | 7 | 4 | | | | | 31 | | |
| BROWARD | 57,200 | 63 | 21 | 1 | 1 | 1 | 1 | | | | | | 1 | 8 | 3 | 241 | | | | | 1 | 258 | | |
| CALHOUN | 8,230 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | | 4 | | | | | | | | | | |
| CHARLOTTE | 4,580 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | | 8 | | | | | | | | | | |
| CITRUS | 5,427 | 2 | 15 | 2 | | | | | | | | | | 26 | 3 | 1 | | | | | | | | |
| CLAY | 12,300 | 6 | 2 | 1 | 2 | | | | | | | 1 | 4 | 23 | 3 | | | | | | | | | |
| COLLIER | 4,957 | 2 | 3 | | | | | | | | | | | 25 | 3 | | | | | | | | | |
| COLUMBIA | 17,300 | 3 | 308 | 17 | 167 | 1 | 11 | 8 | 15 | | 2 | 5 | 4 | 3,328 | 80 | 17 | 13 | 8 | 25 | 4 | 1 | 62 | | |
| DADE | 345,800 | 588 | 158 | 5 | 2 | | | | 1 | 1 | | | | 3 | 53 | 5 | 6 | 1 | 1 | 1 | 1 | 1 | | |
| DESOTO | 6,854 | 5 | 2 | | | | | | | | | | | 3 | 11 | 1 | | | | | | 2 | | |
| DIXIE | 4,926 | 1 | 186 | 5 | 1 | 85 | 92 | 13 | 1 | | 3 | 18 | 22 | 3,301 | 140 | 124 | 3 | 1 | 26 | 5 | 1 | 2 | | |
| DUVAL | 314,900 | 157 | 62 | 1 | 1 | 42 | 1 | 1 | | | 1 | 1 | | 1,828 | 29 | 156 | 14 | 2 | 2 | | | 2 | | |
| ESCAMBIA | 125,000 | 55 | 18 | 2 | | | | | | | 1 | 1 | | 69 | 3 | 27 | | 1 | 1 | | | 4 | | |
| FLAGLER | 2,652 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | 2 | | | 311 | 8 | 68 | | 1 | 1 | | | 17 | | |
| FRANKLIN | 9,300 | 13 | | | 5 | 1 | 2 | 1 | | | | | | 1 | 1 | 1 | | | | | | 1 | | |
| GADSDEN | 31,300 | 4 | 1 | 1 | 1 | 1 | 1 | | | | | | | 10 | 3 | 43 | | | | | | 11 | | |
| GILCHRIST | 3,466 | 4 | 1 | 1 | 4 | | | | | | | | | 28 | 6 | 3 | 3 | | | | | 11 | | |
| GLADES | 2,281 | 3 | 3 | 3 | 1 | | | | | | 1 | | | 10 | 3 | 64 | | | | | | 4 | | |
| GULF | 7,050 | 3 | 3 | 3 | 1 | | | | | | | | | 6 | 1 | 1 | | | | | | 4 | | |
| HAMILTON | 8,731 | 3 | 3 | 3 | 1 | | | | | | | | | 10 | 5 | | | | | | | 2 | | |
| HARDEE | 8,585 | 4 | 4 | 4 | 1 | | | | | | | | | 14 | 1 | | | | | | | 2 | | |
| HENDRY | 5,066 | 7 | 1 | 4 | | | | | | | | | | 92 | 9 | 44 | 2 | | | | | 2 | | |
| HERNANDO | 20,700 | 3 | 11 | | 2 | | | | | | 1 | 11 | 1 | 2,117 | 79 | 254 | 82 | 4 | 32 | 2 | 1 | 426 | | |
| HIGHLANDS | 225,600 | 321 | 38 | 297 | 31 | 8 | 62 | 3 | | | | | | 2 | 84 | 31 | 34 | | | | | 84 | | |
| HILLSBOROUGH | 14,627 | 7 | 4 | 10 | 1 | 1 | 1 | 1 | 3 | 1 | | | | 17 | 8 | 8 | | | | | | | | |
| HOLMES | 9,160 | 5 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | 1 | | | | | | | | | | |
| INDIAN RIVER | 9,160 | 5 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | 1 | | | | | | | | | | |
| JACKSON | 34,570 | 5 | 1 | 1 | 2 | 1 | 1 | 3 | 3 | 1 | | 1 | | 1 | | | | | | | | | | |

TABLE I (Continued)
CASES OF REPORTABLE DISEASES, BY COUNTIES, FLORIDA, 1948 —
AND STATE TOTALS FOR 1946 AND 1947

| COUNTIES | STATE POPULATION 2,477,200 (1948 ESTIMATE) | Cancer | Chancroid | Chickenpox | Conjunctivitis | Diarrhea | Diphtheria | Dysentery—Ameb. | Dysentery—Bac. | Dysentery—Oth. | Encephalitis—Epi. | Encephalitis—Oth. | Erysipelas | German Measles | Gonorrhea | Granuloma Ing. | Hookworm | Influenza | Jaundice | Lymph. Ven. | Malaria—in U.S. | Malaria—Other | Measles |
|------------|---|--------|-----------|------------|----------------|----------|------------|-----------------|----------------|----------------|-------------------|-------------------|------------|----------------|-----------|----------------|----------|-----------|----------|-------------|-----------------|---------------|---------|
| | | | | | | | | | | | | | | | | | | | | | | | |
| JEFFERSON | 11,066 | 6 | | | | | | | | | | | | 3 | 31 | 6 | 131 | | | | 1 | | 102 |
| LAFAYETTE | 8,995 | 13 | | | | 1 | | | 2 | | | | | | 58 | 10 | 106 | | | | | | 7 |
| LAKE | 28,400 | 7 | 1 | | | | | | | | | | | | 37 | 18 | 48 | | | | 1 | | 112 |
| LEE | 27,500 | 7 | 1 | | | | | | | | | | | | 937 | 26 | 38 | | | | | | 9 |
| LEON | 37,900 | 53 | 1 | | 1 | 2 | 2 | 11 | 120 | 1 | | 1 | | | 26 | 2 | 108 | | 2 | | 11 | | 4 |
| LEVY | 9,902 | 7 | | | | | | | | | | | | | 9 | 9 | 32 | | 98 | | | | 28 |
| LIBERTY | 3,193 | 1 | | | | | | | | | | | | | 56 | 127 | 335 | | | | | | 4 |
| MADISON | 15,537 | 3 | | | | | | | | | | | | | 380 | 7 | 81 | | | | | | 4 |
| MANATEE | 27,300 | 44 | 2 | | | | | 1 | | | | | | | 497 | 2 | | | | | | | 19 |
| MARTIN | 37,700 | 10 | | | | | | | | | | | | | 8 | 1 | 80 | | | | | | 2 |
| MONROE | 22,200 | 6 | 1 | | | | | 1 | | 6 | 1 | 1 | | | 21 | 1 | | | | | | | 19 |
| NASSAU | 10,900 | 15 | 1 | 2 | | | | 1 | 1 | | | | | | 8 | 1 | 25 | | 40 | | | | 2 |
| OKALOOSA | 18,300 | 3 | 1 | 4 | | | | | | | | | | 1 | 31 | 3 | 18 | | | | | | 15 |
| OKEECHOBEE | 2,919 | 9 | | 158 | | | | | 1 | | | | 2 | 3 | 444 | 18 | 1 | | | | | | 71 |
| ORANGE | 97,600 | 14 | 28 | | 1 | 2 | 6 | | 1 | | | 1 | | 3 | 19 | 5 | 1 | | | 50 | 1 | | 3 |
| OSCEOLA | 10,900 | 17 | | | | | | | | | | | | 1 | 310 | 111 | 219 | | 6 | | | | 400 |
| PALM BEACH | 183,100 | 11 | | 6 | | | | | 1 | 1 | | | | 1 | 35 | 26 | 2 | | 1 | | | | 13 |
| PASCO | 18,729 | 11 | 7 | 13 | | | | 1 | | | | | | | 551 | 390 | 265 | | 2 | | 1 | | 145 |
| PINELLAS | 154,900 | 44 | 1 | 58 | 2 | 5 | 18 | 1 | 2 | 27 | | | 5 | | 390 | 18 | 265 | | 5 | | | | 311 |
| POLK | 128,900 | 54 | 7 | 58 | 13 | | 19 | 1 | 1 | | | | | | 252 | 15 | 148 | | 2 | | | | 5 |
| PULASKI | 17,837 | 15 | 9 | 1 | | | 8 | | | | | | | | 603 | 2 | | | | 3 | | | 13 |
| PUTNAM | 22,600 | 19 | 3 | 1 | | | 1 | | | | | | 1 | | 161 | 82 | 4 | | 1 | | 1 | | 27 |
| ST. JOHNS | 13,600 | 7 | 2 | | | | 3 | | | | | | | | 161 | 82 | | | | 7 | | | 1 |
| ST. LUCIE | 17,600 | 1 | 1 | 2 | | | 3 | | | | | | | | 92 | 3 | 82 | | | | | | 1 |
| SANTA ROSA | 21,200 | 32 | 4 | 2 | | | 1 | 1 | | | | | | | 200 | 14 | 81 | | 36 | | | | 6 |
| SARASOTA | 26,000 | 8 | | | | | 8 | | 1 | 1 | | | | | 86 | 3 | 140 | | | 10 | | | 2 |
| SEMINOLE | 10,417 | 24 | 2 | | | | 2 | 2 | | | | 1 | | | 38 | 5 | 6 | | 1 | 1 | 2 | | 2 |
| SUMTER | 17,900 | 3 | 1 | | | | 8 | | | | | | | | 7 | 1 | 42 | | | 1 | | | 3 |
| SUWANNEE | 10,738 | 4 | 1 | 18 | | 1 | | | | | | | | | 15 | 14 | 170 | | | 16 | 2 | | 15 |
| TAYLOR | 6,051 | 8 | | | | | | 2 | 2 | | | | | 2 | 432 | 24 | 42 | | 1 | | | | 86 |
| UNION | 62,600 | 112 | 5 | 33 | 2 | | 8 | | | | | | | 2 | 10 | 2 | 265 | | 1 | | | | |
| VOLUNIA | 6,059 | 1 | | 18 | | | | | | | | | | | 24 | 1 | 265 | | | | | | |
| WAKULLA | 13,871 | 5 | | 2 | | | 1 | | | | | | | | 44 | 1 | 216 | | | | | | |
| WASHINGTON | 11,889 | 7 | | | | | | | | | | | 1 | | | | | | | | | | |

PREVENTABLE DISEASES

| COUNTIES | AND STATE TOTALS FOR 1946 AND 1947 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|------------------------------------|-----------------|-------|---------------|-----------------|-------------|----------|----------------------|----------------|----------------|---------------|------------|---------------|----------|-------------|----------|---------|--------------------|--------------------|-----------|---------------|--------------|----------------|----------------|----------------|--------------|-------|----------------|---------|----------------|
| | Meningitis—Epi. | Meningitis—Oth. | Mumps | Ophthal. Neo. | Parasitic, Oth. | Paratyphoid | Pellagra | Pneumonia, All Forms | Polio-myelitis | Robies, Animal | Robies, Human | Salmonella | Scarlet Fever | Smallpox | Strep. Inf. | Syphilis | Tetanus | Tuberculosis, Pul. | Tuberculosis, Oth. | Tularemia | Typhoid Fever | Typhus Fever | Undulant Fever | Vincent's Ang. | Whooping Cough | Dangue Fever | Favus | Food Poisoning | Leprosy | Puerperal Inf. |
| TOTAL FOR 1946 | 77 | 27 | 1,592 | 20 | 486 | 20 | 13 | 772 | 577 | 59 | 1 | 85 | 270 | — | 143 | 16,067 | 40 | 2,110 | — | 7 | 66 | 337 | 81 | 123 | 1,029 | — | — | — | — | 8 |
| TOTAL FOR 1947 | 49 | 20 | 914 | 30 | 522 | 10 | 17 | 663 | 111 | 438 | — | 122 | 320 | — | 121 | 16,683 | 27 | 4,395 | — | 8 | 66 | 340 | 67 | 151 | 1,861 | — | — | — | — | 2 |
| TOTAL FOR 1948 | 48 | 68 | 1,329 | 26 | 426 | 7 | 10 | 551 | 285 | 332 | 1 | 128 | 359 | — | 126 | 15,395 | 73 | 3,313 | — | 19 | 103 | 166 | 74 | 167 | 2 | 1 | 1 | 1 | 13 | 11 |
| ALACHUA | 1 | — | 15 | 1 | 3 | 2 | 10 | 2 | — | — | — | 1 | 1 | — | 1 | 15,244 | 1 | 42 | — | — | 1 | 14 | 3 | 2 | 1 | — | — | — | — | — |
| BAKER | — | — | — | — | 11 | — | — | — | — | — | — | 1 | 6 | — | — | 31 | — | 4 | — | — | 1 | 1 | — | 2 | 1 | — | — | — | — | — |
| BAY | 1 | 1 | 4 | — | — | — | — | — | — | — | — | 2 | — | — | 2 | 195 | — | 34 | — | — | — | — | — | 1 | 2 | — | — | — | — | — |
| BRADFORD | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 392 | — | 6 | — | — | — | — | — | — | — | — | — | — | — | — |
| BREVARD | — | — | 30 | 1 | — | — | — | 2 | 2 | — | — | 4 | 7 | — | 3 | 117 | 5 | 16 | — | — | 3 | — | 1 | 1 | 41 | — | — | — | — | — |
| BROWARD | 4 | 1 | 34 | 1 | — | — | 7 | — | 24 | 5 | — | — | — | — | — | 515 | — | 131 | — | — | — | 1 | 1 | 9 | 36 | — | — | — | — | — |
| CALHOUN | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 39 | 1 | 4 | — | — | — | — | — | — | — | — | — | — | — | — |
| CHARLOTTE | — | — | — | — | — | — | — | — | 1 | — | — | 1 | — | — | — | 29 | — | 8 | — | — | — | — | — | — | — | — | — | — | — | — |
| CITRUS | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 23 | 1 | 3 | — | — | — | — | — | — | — | — | — | — | — | — |
| CLAY | 38 | — | — | — | — | 7 | — | 5 | 3 | — | — | 3 | 3 | — | 3 | 36 | 1 | 8 | — | — | — | — | — | 1 | 1 | — | — | — | — | — |
| COLLIER | 1 | — | — | — | — | — | — | 1 | — | — | — | 1 | 2 | — | — | 44 | 2 | 13 | — | — | — | — | — | 3 | — | — | — | — | — | — |
| COLUMBIA | 1 | 3 | 535 | 10 | — | 1 | 3 | 274 | 83 | 1 | — | 11 | 66 | — | 37 | 2,063 | 19 | 499 | 2 | 2 | 13 | 13 | 1 | 24 | 198 | — | — | 1 | 3 | 1 |
| DADE | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 86 | — | 12 | — | — | — | — | — | — | — | — | — | — | — | — |
| DE SOTO | — | — | — | — | — | — | — | — | — | — | — | 12 | 58 | — | 19 | 1,958 | 12 | 289 | 4 | 4 | 12 | 6 | 9 | 38 | 40 | — | — | — | — | — |
| DIXIE | 9 | 10 | 102 | 5 | 18 | 1 | — | 20 | 33 | 5 | — | 14 | 14 | — | 37 | 80 | 1 | 145 | 1 | 1 | 7 | 12 | 3 | 1 | — | — | — | — | — | — |
| DUVAL | 7 | 3 | — | 3 | — | 3 | — | 1 | 9 | — | — | 9 | 9 | — | — | 83 | 2 | 6 | — | — | — | — | — | — | — | — | — | — | — | — |
| ESCAMBIA | — | — | — | — | — | — | — | — | — | — | — | 2 | 2 | — | — | 49 | 1 | 6 | — | — | 4 | 8 | 2 | 2 | 15 | — | — | — | — | — |
| FLAGLER | 1 | — | — | — | — | — | — | — | — | — | — | 1 | — | — | — | 258 | 1 | 42 | 1 | 1 | 4 | 2 | 2 | 2 | — | — | — | — | — | — |
| FRANKLIN | 14 | — | — | — | — | — | — | — | — | — | — | 1 | 2 | — | — | 6 | — | 2 | — | — | — | — | — | — | — | — | — | — | — | — |
| GADSDEN | 18 | 2 | — | — | — | — | 1 | — | — | — | — | 1 | 2 | — | — | 38 | 1 | 2 | — | — | — | — | — | — | — | — | — | — | — | — |
| GILCHRIST | — | 1 | — | — | — | — | — | — | — | — | — | 1 | — | — | — | 6 | — | 2 | — | — | — | — | — | — | — | — | — | — | — | — |
| GLADES | — | — | 2 | — | — | — | — | — | — | — | — | 1 | — | — | 3 | 38 | — | 11 | — | 2 | 1 | 3 | 2 | 2 | — | — | — | — | — | — |
| GULF | — | — | — | — | — | 1 | — | 1 | — | 2 | — | 1 | 2 | — | — | 63 | — | 11 | — | 2 | — | — | — | — | — | — | — | — | — | — |
| HAMILTON | — | — | — | — | — | — | — | — | — | — | — | 1 | — | — | 3 | 74 | 1 | 11 | — | 2 | 1 | 3 | 2 | 2 | — | — | — | — | — | — |
| HARDY | — | — | 2 | — | — | — | — | — | — | — | — | — | — | — | — | 38 | 1 | 11 | — | — | — | — | — | — | — | — | — | — | — | — |
| HENDRY | — | — | 4 | — | — | — | — | — | — | — | — | 1 | 1 | — | 1 | 71 | 1 | 3 | — | — | — | — | — | — | — | — | — | — | — | — |
| HERNANDO | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 32 | — | 11 | — | — | — | — | — | — | — | — | — | — | — | — |
| HIGHLANDS | 1 | 3 | — | — | — | — | — | 2 | 2 | — | — | 2 | 6 | — | 7 | 166 | 6 | 11 | — | — | 7 | 8 | 1 | 8 | — | — | — | — | — | — |
| HILLSBOROUGH | 8 | 10 | 84 | — | 9 | 1 | — | 175 | 20 | 85 | 1 | 4 | 34 | — | 20 | 1,510 | 6 | 434 | — | — | 12 | 14 | 11 | 24 | 111 | — | — | — | — | — |
| HOLMES | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 69 | — | 10 | — | — | 1 | — | — | 17 | 17 | — | — | — | — | — |
| INDIAN RIVER | 1 | 1 | 8 | 1 | 14 | — | 1 | 3 | 1 | 2 | — | 2 | 1 | — | 4 | 120 | — | 17 | — | — | — | — | — | — | — | — | — | — | — | — |
| JACKSON | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 42 | — | — | — | — | — | — | — | — | — | — | — | — |

[illegible]

VENEREAL DISEASE CONTROL

R. F. SONDAG, M.D., Director

Year after year between 18,000 and 20,000 new cases of gonorrhea and 15,000 to 18,000 new cases of syphilis are reported to the Venereal Disease Control Division.

One might ask "Are we making progress in venereal disease control?" Those who are unimpressed by the progress that has been made or who are gloomy concerning the future, need to analyze the situation. Actually, there was a decrease of 1,000 cases or more for both syphilis and gonorrhea during 1948. The number being reported and under treatment is still significant but should be no cause for pessimism, because paradoxically, the more syphilis and gonorrhea being treated by practicing physicians and venereal disease clinics, the less we have to fear the spread of these diseases.

Modern treatment has become so effective that the treatment of gonorrhea may be accomplished in better than 95% of the cases with a single injection of penicillin, and four times out of five, a case of syphilis may be cured in a week or ten days with penicillin treatment. The number of cases of syphilis and gonorrhea under treatment, therefore, is not a true index of increasing prevalence. We must continue treating large numbers of cases of syphilis and gonorrhea annually until the hidden reservoir is exhausted. As long as this is accomplished, we should have just cause for optimism, as eventually these diseases should be treated out of existence.

The treatment control of gonorrhea and syphilis alone, however, has its limitations, and its control cannot be left solely in the hands of the so-called experts. All resources must be properly and simultaneously employed to bring about a reduction in venereal diseases. The community as a whole has a tremendous responsibility in this problem. That responsibility can be discharged in many ways by seeing that laws against vice are rigidly enforced; that the community cooperates to the fullest extent possible with the public health agencies seeking to keep venereal disease incidence at the lowest possible level; by providing proper recreational facilities; by promoting youth movements and teen age clubs; and by the promotion of home, school, and religious teaching in the field of an attitude toward the moral offender. Those who are unresponsive human relations in the broadest sense of the term. Society has too tolerant appeals on moral grounds must be made to listen and heed warnings regarding their health. Venereal diseases are spread by promiscuous sex behavior. Promiscuity costs society heavily in money, in a feeling

of general well being, in the respect of neighbors, in the chances of having happy and successful marriages, and in many other ways.

The strongest fort, therefore, against such behavior is stable home and family life. Greater and greater strides in the social and moral approach must be made to improve the preventive phases of this problem. Home, school, and religious training can tremendously improve upon the behavior problems of the past. The control of venereal diseases cannot be left alone to the health officers and restricted to a case finding and treatment program. When the program reaches the point where good moral home, school, and religious training combine forces simultaneously with the case finding and treatment programs, then we will be able to point to a true downward trend in the incidence and prevalence of venereal diseases.

The Rapid Treatment Center at Melbourne is a significant factor in the control of venereal diseases. During 1948, 7,379 cases of syphilis and 381 cases of other venereal diseases were treated there. Since streptomycin was made available, the Rapid Treatment Center facilities have been used almost exclusively in the treatment of granuloma inguinale. Patients suffering from this disease have no refuge and the Rapid Treatment Center has been a haven for the treatment of this loathsome condition. Streptomycin has proved so effective in the treatment of granuloma inguinale that it is conceivable to eliminate this condition in the not too distant future.

The statistical tables covering various activities of the venereal disease program follow.

TABLE II
TOTAL NUMBER OF SYPHILIS CASES REPORTED BY STAGE OF INFECTION, PREGNANCY STATUS, RACE AND SEX, SOURCE OF REFERENCE, AGE GROUPS AND THE NUMBER AND PERCENTAGE OF CASES ADMITTED TO THE RAPID TREATMENT CENTER, BY COUNTIES, FLORIDA, 1948

| CASES ADMITTED TO THE RAPID TREATMENT CENTER, BY COUNTY, BY STAGE OF INFECTION, BY RACE AND SEX, BY SOURCE OF REF., BY AGE GROUPS, AND BY ADMISSIONS TO RAPID TREATMENT CENTER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--------------------|-----------|--------------|--------|-------|--------------|-----------|-------|--------|---------|----------------|------------|-----------------|--------------|-----|------|-------|-------|-------|-------|-------|--------------------------------------|------------|--------|---------|-------|------|---|--|
| COUNTY | STAGE OF INFECTION | | | | | RACE AND SEX | | | | | SOURCE OF REF. | | | AGE GROUPS | | | | | | | | ADMISSIONS TO RAPID TREATMENT CENTER | | | | | | | |
| | Primary | Secondary | Early Latent | LATE | | Total | Pregnancy | WHITE | | COLORED | | Not Stated | Clinic or Inst. | Private M.D. | 1-4 | 5-14 | 15-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65 & Over | Not Stated | Number | Percent | | | | |
| | | | | C.N.S. | Other | | | Male | Female | Male | Female | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alachua | 40 | 49 | 69 | 60 | 5 | 18 | 3 | 244 | 18 | 81 | 116 | 185 | 59 | 4 | 2 | 12 | 110 | 41 | 40 | 12 | 7 | 3 | 13 | 127 | 52.0 | | | | |
| Baker | 3 | 12 | 8 | 7 | 3 | 31 | 1 | 31 | 15 | 9 | 17 | 23 | 8 | 3 | 2 | 1 | 16 | 9 | 2 | 2 | 1 | 1 | 1 | 6 | 17 | 54.8 | | | |
| Bay | 28 | 33 | 92 | 27 | 3 | 195 | 1 | 1 | 2 | 39 | 78 | 105 | 90 | 2 | 3 | 3 | 69 | 58 | 39 | 13 | 1 | 1 | 1 | 6 | 89 | 45.6 | | | |
| Bradford | 1 | 9 | 10 | 8 | 3 | 32 | 6 | 1 | 1 | 14 | 13 | 30 | 2 | 2 | 1 | 2 | 8 | 3 | 5 | 13 | 2 | 2 | 2 | 1 | 4 | 125.0 | | | |
| Brevard | 11 | 31 | 28 | 35 | 5 | 117 | 7 | 1 | 4 | 54 | 54 | 60 | 57 | 2 | 1 | 1 | 38 | 32 | 19 | 8 | 2 | 2 | 2 | — | 84 | 71.8 | | | |
| Broward | 47 | 82 | 217 | 148 | 1 | 515 | 26 | 4 | 16 | 259 | 259 | 201 | 314 | 5 | 6 | 6 | 156 | 189 | 81 | 34 | 16 | 3 | 25 | 3 | 159 | 30.9 | | | |
| Calhoun | 5 | 16 | 9 | 8 | 3 | 39 | 2 | 1 | 4 | 9 | 23 | 38 | 1 | 1 | 2 | 5 | 21 | 7 | 2 | 2 | 5 | 2 | 2 | — | 35 | 89.7 | | | |
| Charlotte | 4 | 4 | 8 | 4 | 2 | 29 | 2 | 1 | 1 | 5 | 9 | 13 | 16 | 1 | 1 | 1 | 6 | 3 | 9 | 3 | 3 | 5 | — | — | 21 | 72.4 | | | |
| Citrus | 1 | 7 | 6 | 7 | 2 | 23 | 2 | 2 | 1 | 7 | 11 | 19 | 14 | 1 | 1 | 1 | 9 | 5 | 3 | 3 | 3 | 5 | — | — | 14 | 60.9 | | | |
| Clay | 7 | 11 | 8 | 8 | 3 | 36 | 3 | 3 | 3 | 12 | 13 | 23 | 13 | 2 | — | — | 13 | 10 | 11 | 5 | 2 | 2 | — | — | 19 | 43.2 | | | |
| Collier | 3 | 7 | 16 | 14 | 1 | 44 | 4 | 4 | 3 | 16 | 24 | 43 | 32 | 1 | 6 | 6 | 26 | 19 | 14 | 9 | 4 | 5 | 1 | — | 49 | 57.0 | | | |
| Columbia | 8 | 9 | 27 | 31 | 2 | 86 | 4 | 5 | 3 | 33 | 43 | 52 | 34 | 2 | 3 | 3 | 67 | 63 | 39 | 20 | 3 | 2 | — | — | 53 | 26.1 | | | |
| Dade | 332 | 228 | 795 | 617 | 4 | 2,063 | 66 | 4 | 351 | 267 | 833 | 999 | 1,064 | 9 | 7 | 30 | 607 | 634 | 393 | 203 | 96 | 42 | 5 | 1 | 73 | 91.3 | | | |
| DeSoto | 8 | 20 | 15 | 24 | 2 | 80 | 3 | 2 | 2 | 32 | 38 | 45 | 35 | 2 | 2 | 7 | 20 | 21 | 13 | 8 | 1 | 3 | — | — | 38 | 86.7 | | | |
| Dixie | 3 | 5 | 5 | 3 | 1 | 15 | 1 | 1 | 2 | 2 | 10 | 11 | 4 | 1 | 1 | 1 | 2 | 7 | 3 | 2 | 2 | 1 | — | — | 1,010 | 51.6 | | | |
| Duval | 489 | 338 | 592 | 428 | 14 | 1,958 | 41 | 3 | 167 | 238 | 983 | 1,024 | 934 | 7 | 9 | 28 | 681 | 564 | 307 | 166 | 54 | 26 | 116 | 1 | 1 | 663 | 82.1 | | |
| Escambia | 48 | 218 | 318 | 178 | 1 | 808 | 22 | 2 | 65 | 74 | 269 | 400 | 655 | 153 | 2 | 17 | 324 | 237 | 118 | 76 | 18 | 5 | 9 | 3 | 59 | 71.1 | | | |
| Flagler | 11 | 22 | 25 | 20 | 2 | 83 | 3 | 1 | 4 | 37 | 35 | 50 | 1 | 1 | 7 | 1 | 12 | 9 | 15 | 9 | 3 | 4 | 2 | — | 21 | 42.9 | | | |
| Franklin | 2 | 5 | 19 | 21 | 1 | 49 | 1 | 1 | 5 | 10 | 13 | 30 | 19 | 1 | 1 | 6 | 74 | 28 | 18 | 6 | 1 | 2 | 2 | — | 103 | 39.9 | | | |
| Gadsden | 25 | 30 | 50 | 21 | 1 | 137 | 1 | 1 | 3 | 48 | 82 | 128 | 9 | 1 | 1 | 6 | 12 | 9 | 15 | 15 | 6 | 1 | 2 | — | 3 | 50.0 | | | |
| Gilchrist | — | 1 | 2 | 2 | 2 | 6 | 1 | 1 | 1 | 2 | 2 | 5 | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | — | — | — | — | — | 36 | 94.7 | | |
| Glades | 4 | 14 | 14 | 3 | 3 | 38 | 3 | 3 | 2 | 22 | 13 | 36 | 2 | 2 | 1 | 1 | 15 | 13 | 16 | 5 | 1 | — | — | — | 33 | 52.4 | | | |
| Gulf | 6 | 15 | 24 | 17 | 1 | 63 | 3 | 3 | 7 | 17 | 31 | 36 | 27 | 1 | 2 | 2 | 14 | 15 | 14 | 5 | 5 | 1 | 2 | 4 | 56 | 75.7 | | | |
| Hamilton | 4 | 13 | 27 | 23 | 3 | 74 | 2 | 1 | 2 | 32 | 39 | 67 | 14 | 1 | 1 | 4 | 29 | 13 | 12 | 5 | 1 | 2 | 1 | 1 | 29 | 76.3 | | | |
| Hardee | 2 | 9 | 9 | 14 | 1 | 38 | 1 | 1 | 8 | 4 | 10 | 16 | 20 | 2 | 2 | 2 | 9 | 9 | 4 | 9 | 1 | 2 | 1 | 1 | 44 | 62.0 | | | |
| Hendry | 5 | 15 | 23 | 25 | 1 | 71 | 2 | 2 | 2 | 25 | 42 | 51 | 27 | 3 | 2 | 2 | 23 | 27 | 14 | 3 | 1 | 2 | 2 | 1 | 11 | 34.4 | | | |
| Hernando | 4 | 3 | 10 | 13 | 2 | 32 | 1 | 2 | 6 | 6 | 16 | 16 | 5 | 2 | 2 | 3 | 10 | 40 | 38 | 12 | 7 | 2 | 7 | 2 | 120 | 76.9 | | | |
| Highlands | 14 | 35 | 45 | 48 | 4 | 156 | 2 | 4 | 5 | 53 | 88 | 72 | 84 | 3 | 7 | 4 | 44 | 426 | 278 | 168 | 77 | 39 | 47 | 588 | 38.9 | | | | |
| Hillsborough | 224 | 258 | 453 | 472 | 16 | 1,510 | 37 | 2 | 254 | 268 | 473 | 515 | 782 | 7 | 21 | 21 | 445 | 426 | 278 | 168 | 77 | 39 | 47 | 9 | 42 | 9 | 42 | 9 | |
| Holmes | 7 | 8 | 3 | 2 | 1 | 21 | 1 | 1 | 7 | 4 | 4 | 6 | 21 | 2 | 1 | 1 | 5 | 6 | 6 | 2 | 2 | 2 | 4 | 4 | 60 | 77.0 | | | |
| Indian River | 8 | 14 | 17 | 24 | 1 | 69 | 3 | 3 | 4 | 32 | 30 | 43 | 23 | 1 | 3 | 3 | 18 | 15 | 17 | 4 | 4 | 1 | 3 | — | 85 | 70.8 | | | |
| Jackson | 15 | 35 | 39 | 18 | 1 | 120 | 5 | 1 | 12 | 8 | 15 | 19 | 10 | 2 | 2 | 17 | 55 | 23 | 9 | 5 | 3 | 1 | 3 | — | 21 | 72.4 | | | |
| Jefferson | 5 | 5 | 6 | 5 | 4 | 24 | 1 | 1 | 1 | 12 | 13 | 24 | 17 | 1 | 1 | 12 | 8 | 8 | 3 | 4 | 3 | — | — | — | 21 | 87.5 | | | |
| Lafayette | — | 5 | 6 | 5 | 1 | 23 | 8 | 1 | 15 | 21 | 64 | 73 | 59 | 2 | 2 | 2 | 46 | 43 | 40 | 15 | 10 | 6 | 2 | 2 | 59 | 34.1 | | | |
| Lake | 12 | 32 | 63 | 48 | 1 | 173 | 4 | 1 | 14 | 22 | 58 | 75 | 89 | 1 | 1 | 1 | 58 | 35 | 23 | 15 | 10 | 9 | 9 | — | 44 | 26.8 | | | |
| Lee | 23 | 45 | 46 | 38 | 1 | 164 | 4 | 1 | 11 | 58 | 70 | 75 | 89 | 1 | 1 | 1 | 58 | 35 | 23 | 15 | 10 | 9 | 9 | — | 44 | 26.8 | | | |

TABLE II (Continued)
TOTAL NUMBER OF SYPHILIS CASES BY STAGE OF INFECTION, PREGNANCY STATUS, RACE AND SEX, SOURCE OF REFERENCE, AGE GROUPS AND THE NUMBER AND PERCENTAGE OF CASES ADMITTED TO THE RAPID TREATMENT CENTER, BY COUNTIES, FLORIDA, 1948

| COUNTY | STAGE OF INFECTION | | | | | RACE AND SEX | | | | SOURCE OF REF. | | AGE GROUPS | | | | | | | | ADMISSIONS TO RAPID TREATMENT CENTER | | | | | | | | | | |
|--------------------|--------------------|-----------|--------------|-------------|--------|--------------|-------|--------|---------|----------------|------------|-----------------|--------------|-----|------|-------|-------|-------|-------|--------------------------------------|-----------|------------|--------|---------|---|---|---|---|---|---|
| | Primary | Secondary | Early Latent | Late Latent | Total | Pregnancy | WHITE | | COLORED | | Not Stated | Clinic or Inst. | Private M.D. | 1-4 | 5-14 | 15-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65 & Over | Not Stated | Number | Percent | | | | | | |
| | | | | | | | Male | Female | Male | Female | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leon | 61 | 220 | 91 | 60 | 440 | 9 | 41 | 16 | 188 | 195 | 278 | 162 | 1 | 3 | 261 | 99 | 29 | 22 | 6 | 2 | 18 | 189 | 43.0 | | | | | | | |
| Levy | 3 | 7 | 28 | 19 | 61 | 7 | 1 | 1 | 22 | 38 | 33 | 28 | 1 | 3 | 23 | 10 | 13 | 8 | — | 1 | 1 | 34 | 55.7 | | | | | | | |
| Liberty | 5 | 6 | 7 | 3 | 27 | 4 | 3 | 2 | 18 | 29 | 23 | 4 | 2 | 3 | 51 | 5 | 8 | 3 | 3 | 1 | 2 | 30 | 111.1 | | | | | | | |
| Madison | 8 | 16 | 13 | 13 | 62 | 4 | 8 | 7 | 9 | 13 | 51 | 11 | 2 | 3 | 22 | 19 | 2 | 17 | 4 | 5 | 3 | 47 | 75.8 | | | | | | | |
| Manatee | 21 | 44 | 41 | 40 | 156 | 5 | 12 | 18 | 59 | 67 | 92 | 64 | 2 | 5 | 65 | 34 | 17 | 16 | 10 | 1 | 8 | 99 | 63.5 | | | | | | | |
| Marion | 14 | 35 | 59 | 56 | 177 | 14 | 14 | 13 | 64 | 86 | 97 | 80 | — | 2 | 62 | 40 | 29 | 16 | 4 | 9 | 6 | 120 | 67.8 | | | | | | | |
| Martin | 7 | 12 | 11 | 14 | 42 | 2 | 1 | 1 | 20 | 20 | 21 | 21 | — | 1 | 16 | 11 | 4 | 7 | 1 | 1 | 4 | 30 | 71.4 | | | | | | | |
| Monroe | 12 | 30 | 30 | 25 | 97 | 1 | 15 | 17 | 9 | 28 | 54 | 15 | — | — | 28 | 21 | 5 | 4 | 7 | 1 | 1 | 47 | 68.1 | | | | | | | |
| Nassau | 9 | 12 | 10 | 7 | 47 | 2 | 6 | 11 | 22 | 22 | 39 | 8 | — | — | 18 | 12 | 4 | 5 | 2 | 3 | 3 | 43 | 91.5 | | | | | | | |
| Okaloosa | 1 | 13 | 20 | 9 | 50 | 1 | 1 | 1 | 9 | 24 | 47 | 3 | — | — | 21 | 15 | 7 | 1 | 1 | 1 | 1 | 48 | 96.0 | | | | | | | |
| Okeechobee | 1 | 11 | 12 | 17 | 52 | 1 | 3 | 1 | 29 | 21 | 30 | 22 | 4 | 2 | 24 | 10 | 7 | 3 | 1 | 1 | 2 | 33 | 63.5 | | | | | | | |
| Orange | 65 | 89 | 254 | 206 | 640 | 25 | 56 | 49 | 326 | 326 | 236 | 40 | 6 | 10 | 182 | 162 | 138 | 74 | 28 | 11 | 27 | 268 | 41.9 | | | | | | | |
| Pasco | 5 | 10 | 27 | 35 | 83 | 4 | 8 | 7 | 31 | 31 | 46 | 36 | 1 | 2 | 20 | 20 | 19 | 14 | 2 | 4 | 1 | 58 | 69.9 | | | | | | | |
| Palm Beach | 120 | 237 | 358 | 206 | 957 | 47 | 83 | 60 | 430 | 404 | 541 | 417 | 2 | 1 | 355 | 285 | 161 | 82 | 25 | 8 | 30 | 569 | 59.5 | | | | | | | |
| Palm | 4 | 11 | 28 | 45 | 111 | 1 | 15 | 11 | 41 | 41 | 54 | 57 | 4 | 7 | 15 | 15 | 15 | 8 | 4 | 5 | 34 | 302 | 52.0 | | | | | | | |
| Pinellas | 41 | 84 | 186 | 215 | 581 | 22 | 115 | 82 | 149 | 235 | 349 | 292 | 2 | 24 | 185 | 129 | 86 | 54 | 42 | 2 | 2 | 67 | 60.4 | | | | | | | |
| Polk | 56 | 133 | 369 | 367 | 1,026 | 18 | 82 | 100 | 440 | 404 | 641 | 385 | 4 | 80 | 265 | 219 | 181 | 125 | 39 | 29 | 11 | 462 | 45.0 | | | | | | | |
| Putnam | 16 | 37 | 92 | 80 | 233 | 20 | 16 | 20 | 77 | 120 | 111 | 122 | 2 | 3 | 75 | 67 | 41 | 17 | 12 | 5 | 12 | 116 | 49.8 | | | | | | | |
| St. Johns | 13 | 22 | 20 | 1 | 57 | 9 | 2 | 3 | 36 | 26 | 34 | 33 | — | — | 26 | 21 | 27 | 16 | 3 | 4 | 1 | 31 | 46.3 | | | | | | | |
| St. Lucie | 40 | 54 | 41 | 44 | 196 | 10 | 12 | 12 | 71 | 105 | 162 | 34 | 3 | 5 | 99 | 43 | 27 | 9 | 8 | 2 | 4 | 144 | 73.5 | | | | | | | |
| Santa Rosa | 1 | 9 | 9 | 6 | 22 | 1 | 2 | 4 | 7 | 9 | 19 | 3 | — | 1 | 9 | 21 | 18 | 8 | 1 | 4 | 1 | 18 | 81.8 | | | | | | | |
| Sarasota | 14 | 18 | 31 | 45 | 115 | 3 | 17 | 15 | 38 | 45 | 50 | 65 | — | — | 24 | 32 | 18 | 9 | 8 | 2 | 17 | 40 | 34.8 | | | | | | | |
| Seminole | 11 | 25 | 96 | 127 | 271 | 34 | 1 | 5 | 94 | 171 | 111 | 160 | 60 | 7 | 86 | 67 | 42 | 17 | 10 | 4 | 38 | 115 | 42.4 | | | | | | | |
| Sumter | 8 | 17 | 23 | 15 | 66 | 3 | 3 | 12 | 16 | 37 | 43 | 25 | 1 | 9 | 32 | 12 | 10 | 5 | 2 | 1 | 2 | 42 | 58.8 | | | | | | | |
| Suwannee | 5 | 12 | 20 | 16 | 68 | 3 | 4 | 5 | 20 | 37 | 46 | 20 | 1 | 3 | 26 | 13 | 10 | 4 | 1 | 2 | 2 | 36 | 54.5 | | | | | | | |
| Taylor | 4 | 7 | 11 | 5 | 31 | 4 | 1 | 5 | 10 | 15 | 22 | 9 | — | 3 | 15 | 6 | 4 | 4 | — | — | 1 | 21 | 23 | 74.2 | | | | | | |
| Union | 3 | 4 | 8 | 3 | 21 | 3 | 3 | 3 | 7 | 11 | 18 | 3 | 1 | — | 10 | 5 | 5 | 3 | — | — | 1 | 2 | 21 | 28.4 | | | | | | |
| Volusia | 4 | 4 | 74 | 100 | 267 | 6 | 22 | 24 | 114 | 107 | 185 | 82 | 3 | 8 | 85 | 59 | 4 | 3 | 16 | 8 | 1 | 1 | 199 | 74.5 | | | | | | |
| Wakulla | 24 | 41 | 3 | 5 | 12 | 1 | 1 | 1 | 6 | 6 | 11 | 1 | 1 | — | 5 | 2 | 3 | 1 | — | — | 1 | 1 | 11 | 91.7 | | | | | | |
| Walton | 3 | 3 | 10 | 11 | 48 | 1 | 4 | 9 | 13 | 24 | 40 | 8 | — | 3 | 16 | 10 | 9 | 5 | 1 | — | 2 | 3 | 36 | 75.0 | | | | | | |
| Washington | 5 | 14 | 20 | 8 | 51 | 2 | 6 | 9 | 19 | 24 | 50 | 4 | 1 | 3 | 20 | 11 | 10 | 3 | 1 | — | — | — | 39 | 76.5 | | | | | | |
| State Prison | — | — | 9 | 106 | 121 | — | 20 | 15 | 58 | 28 | 123 | — | — | — | 15 | 18 | 37 | 18 | 14 | 1 | 3 | — | — | — | — | — | — | — | — | |
| State Out of State | — | — | 29 | 23 | 53 | — | 9 | 1 | 41 | 41 | 51 | — | — | — | 13 | 17 | 11 | 6 | 1 | 1 | 5 | — | — | — | — | — | — | — | — | — |
| Out of State | 3 | 7 | 29 | 44 | 89 | 2 | 27 | 18 | 27 | 17 | 48 | 41 | — | — | 1 | 19 | 19 | 18 | 11 | 4 | 4 | 7 | 623 | 7.694 | | | | | | |
| TOTAL | 1,990 | 2,857 | 5,178 | 4,427 | 15,434 | 650 | 1,652 | 1,632 | 5,274 | 6,866 | 8,790 | 6,694 | 88 | 88 | 428 | 5,159 | 4,148 | 2,630 | 1,416 | 612 | 292 | 623 | 7,694 | 50.0 | | | | | | |

TABLE III
ADMISSIONS AND READMISSIONS TO FLORIDA RAPID TREATMENT CENTER
BY DISEASE, STAGE OF INFECTION, RACE, AND SEX, BY MONTH, 1948

| DISEASE AND STAGE OF INFECTION | | | | | | | | | | | | | | | | | RACE AND SEX | | | |
|--------------------------------|--------------------------|--------------|--------------------|---------------|------------|-------|-------|-----------|-------------|-------------------------------|----------|---------------------|----------|-----------|-------------|-----------------------|--------------------------------------|--------|---------|--------|
| MONTH OF ADMISSION | ADMISSIONS | | | | | | | | | | | READMISSIONS | | | | | WHITE | | COLORED | |
| | SYPHILIS | | | | | | TOTAL | Gonorrhea | Other V. D. | Post Treatment Observation | No V. D. | TOTAL ADMISSIONS | Syphilis | Gonorrhea | Other V. D. | Total Readmissions | TOTAL ADMISSIONS AND READMISSIONS | | Male | Female |
| | Primary and Secondary | Early Latent | Late and Latent | Neurosyphilis | Congenital | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | Male | Female | Male | Female |
| January | 386 | 140 | 57 | 29 | 33 | 645 | 5 | 18 | 3 | 20 | 688 | 4 | — | 3 | 7 | 695 | 57 | 84 | 245 | 309 |
| February | 395 | 152 | 65 | 33 | 23 | 668 | 5 | 16 | — | 23 | 715 | 11 | — | 3 | 14 | 729 | 49 | 46 | 292 | 342 |
| March | 373 | 192 | 81 | 31 | 33 | 710 | 7 | 29 | 6 | 53 | 805 | 20 | 1 | 6 | 27 | 832 | 55 | 65 | 349 | 363 |
| April | 311 | 233 | 85 | 47 | 28 | 704 | 10 | 38 | 9 | 57 | 815 | 23 | — | 2 | 25 | 840 | 58 | 55 | 328 | 399 |
| May | 253 | 218 | 106 | 41 | 43 | 661 | 3 | 37 | 7 | 47 | 755 | 15 | 1 | 3 | 19 | 774 | 52 | 61 | 326 | 335 |
| June | 193 | 197 | 153 | 32 | 58 | 633 | 8 | 32 | 5 | 93 | 771 | 30 | — | 7 | 37 | 808 | 54 | 47 | 294 | 413 |
| July | 203 | 147 | 158 | 42 | 49 | 599 | 9 | 31 | 4 | 75 | 718 | 32 | — | 7 | 39 | 757 | 56 | 44 | 292 | 365 |
| August | 188 | 191 | 167 | 52 | 42 | 650 | 8 | 22 | 7 | 62 | 749 | 40 | 2 | 4 | 46 | 795 | 58 | 57 | 320 | 360 |
| September | 148 | 202 | 146 | 52 | 36 | 584 | 7 | 11 | 11 | 62 | 675 | 23 | 1 | 4 | 28 | 703 | 37 | 48 | 281 | 337 |
| October | 141 | 174 | 162 | 37 | 26 | 540 | 8 | 22 | 6 | 55 | 631 | 30 | — | 6 | 36 | 667 | 46 | 58 | 257 | 306 |
| November | 132 | 157 | 143 | 56 | 35 | 523 | 6 | 17 | 3 | 34 | 583 | 35 | — | 5 | 40 | 623 | 49 | 44 | 256 | 274 |
| December | 109 | 146 | 131 | 45 | 31 | 462 | 6 | 26 | 4 | 23 | 521 | 45 | — | 1 | 46 | 567 | 60 | 51 | 218 | 238 |
| TOTAL | 2,832 | 2,149 | 1,454 | 507 | 437 | 7,379 | 82 | 299 | 51 | 616 | 8,426 | 308 | 5 | 51 | 364 | 8,790 | 631 | 660 | 3,458 | 4,041 |
| Per Cent | 32.2 | 24.4 | 16.5 | 5.8 | 5.0 | 83.9 | .9 | 3.4 | .6 | 7.0 | 95.9 | 3.5 | .1 | .6 | 4.1 | 100.0 | 7.2 | 7.5 | 39.3 | 46.0 |

CANCER CONTROL

R. F. SONDAG, M.D., Director

With the passage of the Cancer Control Law by the 1947 Legislature, and the establishment of a Division of Cancer Control in the Bureau of Preventable Diseases on September 27, 1947, all the interest and concern about cancer as a major public health problem were crystalized into definite and organized action. The cancer control law provided a four point program of (1) Education; (2) Establishment of tumor clinics; (3) Tissue diagnostic service to all needy patients; and (4) Financial aid in diagnosis and treatment of medically indigent patients, within the limits of available funds. To provide these services, a state appropriation of \$200,000 per year was made available by the Florida Legislature beginning with the fiscal year July 1, 1947.

The cancer program has now operated a little over one year, so activities during the calendar year 1948 offer the first opportunity to analyze the accomplishments to date, and to consider the possibility of further progress possible under the provisions of the Florida Cancer Control Act.

This report covers those cases approved for state assistance, which represents only a part of the total cancer morbidity in Florida. It is not appropriate nor possible to evaluate a one year program and this fact should be remembered when interpreting the data and making comparison.

During 1948, 1,503 cases were approved for state aid under the cancer control program as having a malignancy or a suspected malignancy. Of these, 776 (51.6 per cent) were cases of cancer or other malignant tumors, 298 (19.8 per cent) were non-malignant, and 429 (28.5 per cent) diagnosis not determined at time of this report (Table IV). The number of cases approved in the white race, 1,166 (77.6 per cent), was more than four times the number of cases approved among Negroes. There were 253 (32.6 per cent) malignancies discovered in the white males, and 341 (44.0 per cent) in the white females. More white females were approved for state aid than any other group and more malignancies were diagnosed in this group. In the colored race, 56 (7.2 per cent) males and 126 (16.2 per cent) females were diagnosed with cancer or other malignant tumors.

TABLE IV
NUMBER AND PERCENTAGE DISTRIBUTION OF CASES APPROVED FOR STATE-AID
ACCORDING TO STATUS, BY RACE AND SEX
FLORIDA, 1948

| STATUS | TOTAL | | WHITE | | | | COLORED | | | |
|-----------------------------------|-------|-------|-------|------|--------|------|---------|-----|--------|------|
| | % | | MALE | | FEMALE | | MALE | | FEMALE | |
| | NO. | % | NO. | % | NO. | % | NO. | % | NO. | % |
| Cancer and other malignant tumors | 776 | 51.6 | 253 | 32.6 | 341 | 44.0 | 56 | 7.2 | 126 | 16.2 |
| No malignancy | 298 | 19.8 | 62 | 20.8 | 162 | 54.4 | 24 | 8.0 | 50 | 16.8 |
| Incomplete information | 429 | 28.5 | 139 | 32.4 | 209 | 48.7 | 21 | 4.9 | 60 | 14.0 |
| TOTAL | 1,503 | 100.0 | 454 | 30.2 | 712 | 47.4 | 101 | 6.7 | 236 | 15.7 |

TABLE V
NUMBER AND PERCENTAGE DISTRIBUTION OF CASES OF CANCER AND OTHER MALIGNANT TUMORS
ACCORDING TO SITE, BY RACE AND SEX FLORIDA STATE-AID, 1948

| SITE | TOTAL | | | | WHITE | | | | COLORED | | | | | |
|-------------------------|-------|-------|------|------|--------|------|------|------|---------|------|------|---|--------|---|
| | TOTAL | | MALE | | FEMALE | | MALE | | FEMALE | | MALE | | FEMALE | |
| | NO. | % | NO. | % | NO. | % | NO. | % | NO. | % | NO. | % | NO. | % |
| Buccal cavity | 64 | 8.2 | 37 | 57.8 | 14 | 21.9 | 9 | 14.1 | 4 | 6.2 | | | | |
| Total digestive organs* | 64 | 8.2 | 20 | 31.2 | 22 | 34.4 | 17 | 26.6 | 5 | 7.8 | | | | |
| Stomach | 15 | 1.9 | 5 | 33.3 | 3 | 20.0 | 7 | 46.7 | — | — | | | | |
| Respiratory system | 40 | 5.2 | 26 | 65.0 | 7 | 17.5 | 5 | 12.5 | 2 | 5.0 | | | | |
| Total genital** | 214 | 27.6 | 6 | 2.8 | 128 | 59.8 | 10 | 4.7 | 70 | 32.7 | | | | |
| Uterus & Cervix | 184 | 23.7 | — | — | 121 | 65.8 | — | — | 63 | 34.2 | | | | |
| Urinary system | 14 | 1.8 | 8 | 57.1 | 3 | 21.4 | 2 | 14.3 | 1 | 7.1 | | | | |
| Breast | 94 | 12.1 | — | — | 59 | 62.8 | — | — | 35 | 37.2 | | | | |
| Skin | 237 | 30.5 | 140 | 59.1 | 89 | 37.5 | 3 | 1.3 | 5 | 2.1 | | | | |
| Other | 49 | 6.3 | 16 | 32.6 | 19 | 38.8 | 10 | 20.4 | 4 | 8.2 | | | | |
| TOTAL | 776 | 100.0 | 253 | 32.6 | 341 | 44.0 | 56 | 7.2 | 126 | 16.2 | | | | |

*Includes Stomach

**Includes Uterus and Cervix

The number and percentage distribution of cases of cancer and other malignant tumors according to site, by race and sex are shown in Table V. Of the 776 malignant neoplasms, 237 (30.5 per cent) involved the skin, which is comparable to incidence statistics of other southern states and suggests that cancer of the skin may be associated with exposure to the sun. It is noteworthy that 229 of the 237 skin malignancies were discovered in white persons. Neoplastic conditions of the skin was the most common site in white males, with neoplasms of the buccal cavity and respiratory system next in order, whereas, cancer of the genital organs was the most predominant lesion in white females, with skin second and breast third in order.

The Tennessee Department of Public Health, in their annual report for 1947, published data showing the percentage distribution by site of malignant neoplasms for their tumor clinics, Memorial Hospital of New York, and the State of Connecticut. These data and corresponding data for Florida during 1948 are given in Table VI. It will be noted that the percentage distribution of malignancies in Florida is comparable to the experience in Tennessee.

TABLE VI
PERCENTAGE DISTRIBUTION OF MALIGNANT NEOPLASMS BY SITE, IN TENNESSEE 1947,
MEMORIAL HOSPITAL OF NEW YORK 1946, STATE OF CONNECTICUT 1935-1946,
AND FLORIDA 1948

| SITE | Florida 1948 | Tennessee 1947 | Memorial Hospital of New York 1946 | State of Connecticut 1935-1946 |
|-----------------------|-----------------|-------------------|---|--------------------------------------|
| Buccal cavity | 8.0 | 6.0 | 16.0 | 5.0 |
| Digestive organs | 8.0 | 6.0 | 16.0 | 29.0 |
| Respiratory system | 5.0 | 2.0 | 7.0 | 5.0 |
| Female genital organs | 24.0 | 27.0 | 7.0 | 14.0 |
| Male genital organs | 4.0 | 4.0 | 3.0 | 5.0 |
| Breast | 12.0 | 15.0 | 22.0 | 14.0 |
| Urinary system | 2.0 | 3.0 | 3.0 | 4.0 |
| Skin | 31.0 | 27.0 | 12.0 | 10.0 |
| Others | 6.0 | 10.0 | 14.0 | 14.0 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 |

The number and percentage distribution of malignant cases by age group, sex and race is given in Table VII. The data by site, age groups, sex, and color is presented in Table VIII. Of the 594 white cases, 17 (2.9 per cent) were of persons under 25 years of age and 2.7 per cent of the colored cases were in that age group. The greatest number of cases were discovered in the 45-64 age group for both white and colored. Approximately one third of the neoplasms of the female genital organs in both white and colored were diagnosed in the 25-44 age group. As for the other sites, the diagnosis of neoplastic disease in most instances was made after 45 years of age.

TABLE VII
NUMBER AND PERCENTAGE DISTRIBUTION OF CASES OF CANCER
AND OTHER MALIGNANT TUMORS BY AGE GROUP, SEX AND RACE
FLORIDA, STATE-AID, 1948

| AGE | TOTAL | | MALE | | | | FEMALE | | | |
|-----------|-------|-------|-------|------|---------|-----|--------|------|---------|------|
| | | | WHITE | | COLORED | | WHITE | | COLORED | |
| | No. | % | No. | % | No. | % | No. | % | No. | % |
| Under 25 | 22 | 2.8 | 4 | 18.2 | — | — | 13 | 59.1 | 5 | 22.7 |
| 25-44 | 177 | 22.8 | 36 | 20.3 | 12 | 6.8 | 83 | 46.9 | 46 | 26.0 |
| 45-64 | 304 | 29.2 | 90 | 29.6 | 24 | 7.9 | 147 | 48.4 | 43 | 14.1 |
| 65 & Over | 273 | 35.2 | 123 | 45.1 | 20 | 7.3 | 98 | 35.9 | 32 | 11.7 |
| TOTAL | 776 | 100.0 | 253 | 32.6 | 56 | 7.2 | 341 | 44.0 | 126 | 16.2 |

TABLE VIII
NUMBER OF CASES OF CANCER AND OTHER
MALIGNANT TUMORS ACCORDING TO SITE BY AGE, COLOR, AND SEX,
FLORIDA, STATE-AID, 1948

| SITE | ALL AGES | | | | | | UNDER 25 | | | | | | 25-44 | | | | | | 45-64 | | | | | | 65 AND OVER | | | | | |
|-------------------------|----------|-----|-------|---------|-----|-------|----------|----|-------|---------|----|-------|-------|----|-------|---------|-----|-------|-------|-----|-------|---------|----|-------|-------------|----|-------|---------|---|-------|
| | White | | | Colored | | | White | | | Colored | | | White | | | Colored | | | White | | | Colored | | | White | | | Colored | | |
| | M | F | Total | M | F | Total | M | F | Total | M | F | Total | M | F | Total | M | F | Total | M | F | Total | M | F | Total | M | F | Total | M | F | Total |
| Buccal Cavity | 37 | 14 | 51 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total Digestive Organs* | 20 | 22 | 42 | 17 | 5 | 22 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Stomach | 5 | 3 | 8 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Respiratory System | 26 | 7 | 33 | 5 | 2 | 7 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total Genital** | 6 | 128 | 134 | 10 | 70 | 80 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Uterus & Cervix | — | 121 | 121 | — | 63 | 63 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Urinary System | 8 | 3 | 11 | 2 | 1 | 3 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Breast | — | 59 | 59 | — | 35 | 35 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Skin | 140 | 89 | 229 | 3 | 5 | 8 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Others | 16 | 19 | 35 | 10 | 4 | 14 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| TOTAL | 253 | 341 | 594 | 56 | 126 | 182 | 4 | 13 | 17 | 5 | 36 | 83 | 12 | 46 | 58 | 90 | 147 | 24 | 43 | 123 | 98 | 20 | 32 | 118 | 20 | 32 | 52 | 13 | 4 | 17 |

*Includes Stomach
**Includes Uterus & Cervix

TABLE IX
NUMBER OF CASES OF CANCER AND OTHER MALIGNANT TUMORS
ACCORDING TO SERVICE AND COST BY SITE
FLORIDA, STATE-AID, 1948

| FLORIDA, STATE-WIDE, 1948 | | | | | | | | | | | | | | | | | | | |
|---------------------------|--------------|------------|--------------|-----------------|-------------|--------------|-------------|--------------|-------------|--------------|------------|--------------|------------|-----|------------|--|--|--|--|
| Site | DIAGNOSIS | | | HOSPITALIZATION | | | SURGERY | | X-RAY | | RADIUM | | OTHER | | TOTAL COST | | | | |
| | BIOPSY | | No. of Cases | No. of Days | Cost | No. of Cases | Cost | No. of Cases | Cost | No. of Cases | Cost | No. of Cases | Cost | | | | | | |
| | No. of Cases | Cost | | | | | | | | | | | | | | | | | |
| Buccal Cavity | 19 | 485.00 | 17 | 202 | 2,489.88 | 10 | 770.00 | 47 | 2,664.00 | 2 | 75.00 | 20 | 347.45 | 6 | 831.33 | | | | |
| Total Digestive Organs | 7 | 204.00 | 48 | 857 | 12,174.27 | 36 | 4,925.00 | 26 | 732.50 | 1 | 83.30 | 30 | 1,160.80 | 6 | 1,979.87 | | | | |
| Stomach | — | — | 12 | 227 | 3,000.52 | 12 | 1,450.00 | 6 | 217.50 | — | — | 6 | 223.80 | — | — | | | | |
| Respiratory System | 5 | 190.00 | 25 | 276 | 3,892.52 | 15 | 1,700.00 | 33 | 2,057.50 | — | — | 19 | 731.20 | — | — | | | | |
| Total Genital Organs | 20 | 530.00 | 117 | 1,642 | 18,286.27 | 50 | 4,491.50 | 156 | 13,219.50 | 69 | 6,936.59 | 62 | 1,192.00 | 54 | 4,655.86 | | | | |
| Uterus & Cervix | 18 | 405.00 | 98 | 1,205 | 13,422.22 | 35 | 3,172.50 | 137 | 12,017.00 | 68 | 6,911.59 | 54 | 1,030.00 | 6 | 547.00 | | | | |
| Urinary System | 1 | 50.00 | 12 | 278 | 3,836.14 | 8 | 890.00 | 7 | 481.00 | — | — | 6 | 537.00 | — | — | | | | |
| Breast | 11 | 345.00 | 50 | 703 | 7,805.73 | 41 | 3,785.00 | 71 | 5,683.75 | 2 | 227.85 | 24 | 476.00 | 33 | 18,924.33 | | | | |
| Skin | 41 | 1,076.00 | 47 | 541 | 6,585.13 | 28 | 2,150.00 | 176 | 5,621.00 | 15 | 637.00 | 33 | 381.50 | 33 | 16,450.63 | | | | |
| All Other Sites | 7 | 320.00 | 21 | 271 | 2,871.33 | 14 | 1,250.00 | 38 | 2,566.50 | 1 | 25.00 | 15 | 436.94 | 15 | 7,469.77 | | | | |
| TOTAL | 111 | \$3,200.00 | 337 | 4,770 | \$57,941.27 | 202 | \$19,961.50 | 554 | \$33,025.75 | 90 | \$7,984.74 | 209 | \$5,272.89 | 127 | \$386.15 | | | | |

The data on the number of malignancies according to treatment received and cost by site are presented in Table IX. Of the 776 malignant cases, 337 were hospitalized for treatment, 202 received surgery, 554 X-ray therapy, and 90 radium therapy. Some of the cases received a combination of all three types of treatment. The funds expended for other costs in Table IX represents charges other than hospitalization, surgery, x-ray, and radium, such as blood bank charges, estrogens, etc. The average cost per day for hospitalized cases and the average cost per case including all services paid by the state aid program are shown in Table X.

Included in Table IX on services and cost by site is a column showing 111 cases that were approved for diagnostic biopsies. These patients were either hospitalized for the biopsy or received this service in the office of their private physician. In addition to these biopsies, the number of indigent patients examined through the facilities of the biopsy mailing service increased from 304 in 1947 to 973 in 1948. Private physicians perform the biopsy and mail the suspected tissue to the pathologist of their choice. The pathologist examines the tissue, submits his findings to the physician and mails a copy of his report to the State Board of Health. The cost for this service during 1948 amounted to \$4,865.00. The number of biopsy specimens examined by color, sex, age group, and site, are shown in Table XI and Table XII.

The number and percentage distribution of deaths from cancer by site and sex is represented in Table XIII. As elsewhere in the United States, the crude death rate from cancer in Florida has shown an uninterrupted increase during the past years and ranks as the second leading cause of death. In all probability there will be further increases in the crude death rate from cancer for the next several years because other states conducting organized cancer control activities find that cancer deaths increase for several years after launching a control program. By reviewing Table XIII, one can easily determine where major emphasis should be directed to reduce the number of deaths from cancer; namely, the digestive organs, the genital organs, the respiratory system, and the breast. Improvement in diagnostic methods, early diagnosis and adequate immediate treatment should reflect a reduction in deaths from cancer in these predominant sites.

During 1948 the State Board of Health gave financial support to newly established tumor clinics in Tampa, West Palm Beach, Pensacola and Miami. These tumor clinics were established by the medical societies in those counties according to the standards of the State Board of Health and the American College of Surgeons. Additional tumor clinics are planned in Tallahassee, Orlando, Lakeland, Ft. Lauderdale and St. Petersburg. Some financial support was given to detection clinics in Ocala, Gainesville, DeLand, and Daytona Beach.

TABLE X
COST ANALYSIS OF CASES OF CANCER AND OTHER MALIGNANT TUMORS
ACCORDING TO HOSPITALIZATION AND TOTAL SERVICES BY SITE
FLORIDA, STATE-AID, 1948

| SITE | HOSPITALIZATION ONLY | | | TOTAL SERVICES INCLUDING HOSPITALIZATION | |
|------------------------|------------------------------|----------------------|-----------------------|--|-----------------------|
| | Average Number Days Per Case | Average Cost Per Day | Average Cost Per Case | Number of Cases | Average Cost Per Case |
| Buccal Cavity | 12 | 12.33 | 146.46 | 64 | 106.74 |
| Total Digestive Organs | 18 | 14.20 | 253.63 | 64 | 301.25 |
| Stomach | 19 | 13.22 | 250.04 | 15 | 326.12 |
| Respiratory System | 11 | 14.10 | 155.70 | 40 | 214.28 |
| Total Genital Organs | 14 | 11.14 | 156.29 | 214 | 208.67 |
| Uterus | 12 | 11.14 | 136.96 | 184 | 200.86 |
| Urinary System | 23 | 13.80 | 319.68 | 14 | 414.58 |
| Breast | 14 | 11.10 | 156.11 | 94 | 194.93 |
| Skin | 12 | 12.17 | 140.01 | 237 | 69.41 |
| All Other Sites | 13 | 10.60 | 136.73 | 49 | 152.44 |
| TOTALS | 14 | 12.15 | 171.93 | 776 | 164.16 |

TABLE XI
BIOPSY EXAMINATIONS
BY COLOR, SEX, AGE GROUP, AND FINDINGS
FLORIDA 1948

| Age Group | MALIGNANT | | | | | NON-MALIGNANT | | | | |
|-----------------|-----------|-----|---------|----|-------|---------------|-----|---------|-----|-------|
| | White | | Colored | | Total | White | | Colored | | Total |
| | M | F | M | F | | M | F | M | F | |
| Under 25 | 0 | 5 | 1 | 3 | 9 | 14 | 27 | 10 | 19 | 70 |
| 25-44 | 12 | 35 | 6 | 19 | 72 | 21 | 145 | 7 | 79 | 252 |
| 45-64 | 34 | 45 | 9 | 29 | 117 | 21 | 90 | 12 | 33 | 161 |
| 65 and over | 46 | 35 | 12 | 11 | 104 | 20 | 40 | 9 | 12 | 81 |
| Age Unspecified | 5 | 6 | 1 | 6 | 18 | 10 | 11 | 3 | 6 | 30 |
| No Data | | | | | 16 | | | | | 43 |
| TOTAL | 97 | 126 | 29 | 68 | 336 | 86 | 313 | 41 | 154 | 637 |

TABLE XII
BIOPSY EXAMINATIONS
BY COLOR, SEX, SITE, AND FINDINGS
FLORIDA, 1948

| SITES | MALIGNANT | | | | | | NON-MALIGNANT | | | | | |
|-----------------------|-----------|-----|-------|---------|----|-------|---------------|-----|-------|---------|-----|-------|
| | White | | | Colored | | | White | | | Colored | | |
| | M | F | Total | M | F | Total | M | F | Total | M | F | Total |
| | | | | | | | | | | | | |
| Skin and Subcutaneous | 68 | 39 | 107 | 4 | 3 | 7 | 39 | 62 | 101 | 15 | 9 | 24 |
| Uterus and Vagina | 0 | 45 | 45 | 0 | 41 | 41 | 0 | 166 | 166 | 0 | 87 | 87 |
| Other Genital | 0 | 2 | 2 | 2 | 1 | 3 | 2 | 4 | 6 | 4 | 9 | 13 |
| Breast | 0 | 6 | 6 | 0 | 12 | 12 | 4 | 14 | 18 | 1 | 9 | 10 |
| Buccal Cav. Incl. Lip | 18 | 9 | 27 | 9 | 2 | 11 | 19 | 14 | 33 | 8 | 7 | 15 |
| Other Digestive | 2 | 9 | 11 | 5 | 2 | 7 | 8 | 6 | 14 | 5 | 8 | 13 |
| Urinary | 1 | 0 | 1 | 0 | 1 | 1 | 3 | 1 | 4 | 0 | 2 | 2 |
| Papanicolaou Smears | 0 | 7 | 7 | 1 | 1 | 2 | 1 | 31 | 32 | 0 | 10 | 10 |
| Other | 8 | 9 | 17 | 8 | 5 | 13 | 10 | 15 | 25 | 8 | 13 | 21 |
| Incomplete Data | | | | | | | | | | | | |
| TOTAL | 97 | 126 | 223 | 29 | 68 | 97 | 86 | 313 | 411 | 41 | 154 | 295 |

Financial support was given to the annual cancer seminar which was held in Tampa. The program was outstanding and the faculty of prominent cancer specialists gave lectures on the early diagnosis and treatment of cancer of those sites responsible for the greatest number of deaths and those sites presenting the greatest difficulties in early diagnosis. More than 400 physicians attended this three day seminar. Most of the lay educational program was conducted by the Florida Division of the American Cancer Society; however, the Cancer Control Division purchased most of the educational pamphlets which were distributed. This society is doing intensive work in stimulating and carrying on a program of education and the state division, as well as the county units, have cooperated to the fullest extent with the efforts of the Division of Cancer Control.

Due to the large number of requests for state aid, the Division of Cancer Control found it necessary to limit approvals to those indigent patients presenting a good prognosis. Cancer treatment is expensive and the funds are limited, therefore cities, counties, and welfare agencies must assume the costs of necessary palliative treatments or other medical care which is necessary to relieve suffering and provide reasonable comfort to the far advanced cancer patient.

It is apparent from this report that much has been accomplished since the inauguration of a cancer control program in Florida; however, much credit is due to the medical profession who individually have rendered the diagnostic and treatment services, and collectively through official medical societies and specialty groups, have supported and cooperated in all phases of this program. With continued effort in this direction, further progress can be anticipated in the future.

TABLE XIII
NUMBER AND PERCENTAGE DISTRIBUTION OF DEATHS FROM CANCER,
BY SITE, BY SEX, FLORIDA, 1948

| SITE | MALE | | FEMALE | | TOTAL | |
|------------------------------------|--------|-----|--------|-----|--------|-----|
| | Number | % | Number | % | Number | % |
| Buccal Cavity and Pharynx | 84 | 6 | 15 | 1 | 99 | 3 |
| Digestive Organs and Peritoneum a/ | 592 | 42 | 520 | 34 | 1,112 | 37 |
| Stomach | 215 | 15 | 117 | 8 | 332 | 11 |
| Respiratory System | 257 | 18 | 63 | 4 | 320 | 11 |
| Male and Female Genital Organs b/ | 205 | 14 | 452 | 29 | 657 | 22 |
| Uterus & Cervix | | | 373 | 24 | 373 | 13 |
| Urinary Organs | 86 | 6 | 52 | 3 | 138 | 5 |
| Breast | 4 | * | 260 | 17 | 264 | 9 |
| Skin | 41 | 3 | 33 | 2 | 74 | 3 |
| All Others | 159 | 11 | 146 | 10 | 305 | 10 |
| TOTAL | 1,428 | 100 | 1,541 | 100 | 2,969 | 100 |

a/ Includes stomach

b/ Includes uterus & cervix

* Less than 0.5%

TYPHUS FEVER STUDIES

E. R. RICKARD, M.D., Director

At the beginning of the year the use of a building at the Florida State Tuberculosis Sanatorium in Tampa was secured. As this building had previously been used as a medical laboratory, it was adapted for our purposes with but little expense. Adequate animal quarters were also provided on the grounds of the same institution.

In order to be better informed in planning studies in the field and to secure an abundant supply of rodents and ectoparasites for laboratory studies a county wide rodent survey was begun at the beginning of March. A large representative area of the City of Tampa was selected in which no wide spread organized control measures had been carried out. Blocks were designated for trapping in a checker board arrangement. From 6 to 9 traps were set in each block for three nights in places most likely to harbor rats. The survey in the city was ended in September. A similar survey in all the rural sections of the county was also started in March. In the rural survey, farms instead of blocks were considered as units. Trapping was generally limited to three nights on each farm and the number of traps set out varied according to the judgment of the trapper. Rural trapping has been continued to the end of the year in order to supply material for laboratory studies. In addition to the routine survey, trapping was carried out at possible places of infection of persons living in the county who had typhus during the years 1947 and 1948. Rats were brought into the laboratory alive, combed for ectoparasites, which were later identified, and rats bled for the complement fixation tests for murine typhus. The numbers of rats caught and the results of the complement fixation tests have been summarized in Table XIV. These results indicated no great abundance of rats, and with the exception of the probable places of infection of the typhus cases, relatively low complement fixation indices.

Ectoparasites observations show that low flea indices have persisted throughout the year with *X. cheopis* as the predominant species. *R. rattus* appears to be almost five times as abundant as *R. norvegicus*.

In addition to the county wide rodent survey, systematic retrapping in five representative residential areas in the City of Tampa has been carried out throughout the year as part of a study in cooperation with the Department of Parasitology of the Johns Hopkins School of Hygiene and Public Health. Results of complement fixation tests on rats taken in these areas have been summarized and again low complement fixation indices have been observed.

A rather large number of wild species have been examined by complement fixation for murine typhus. A considerable number of these

TABLE XIV
RODENT SURVEY IN THE CITY OF TAMPA AND HILLSBOROUGH COUNTY

| | Urban Routine Trapping | Rural Routine Trapping | Investi- gation of 1947 Typhus Cases | Investi- gation of 1948 Typhus Cases | Total |
|---|------------------------------|------------------------------|--|--|-------|
| Number of urban blocks or rural farms investigated | 190 | 283 | 37 | 16 | 526 |
| Number of blocks or farms in which rats were taken | 126 | 230 | 24 | 11 | 391 |
| Percent of blocks or farms in which rats were taken | 67 | 82 | 65 | 69 | 75 |
| Total number of rats caught | 456 | 1,272 | 113 | 121 | 1,962 |
| Average number of rats taken per block or farm with rats | 3.6 | 5.5 | 4.7 | 11.1 | 5.0 |
| Number of rats examined by complement fixation for murine ty. | 313 | 782 | 86 | 67 | 1,248 |
| Titers observed | 0 at 1:4 | 265 | 633 | 53 | 989 |
| | 1:4 | 27 | 62 | 2 | 95 |
| | 1:8 | 5 | 29 | 3 | 39 |
| in complement | 1:16 | 1 | 14 | 2 | 21 |
| | 1:32 | 4 | 11 | 4 | 20 |
| fixation tests | 1:64 | 1 | 10 | 5 | 18 |
| | 1:128 | 1 | 8 | 0 | 15 |
| | 1:256 | | | | |
| or more | 9 | 15 | 12 | 15 | 51 |
| Number of blocks or farms with one or more rats with titers of 1:8 or more | 16 | 49 | 10 | 5 | 80 |
| Percent of blocks or farms with one or more rats with titers of 1:8 or more | 8.4 | 17.8 | 27.0 | 31.2 | 15.2 |
| Percent of rats examined with titers of 1:8 or more | 8.6 | 11.1 | 35.3 | 37.3 | 13.1 |

species, particularly cotton and wood rats, have been found to be positive; however, there is still doubt as to the specificity of the test with the sera of these animals. Observed titers have been low and there have been a few instances in which such results were obtained with the sera of cotton rats bred in captivity under conditions precluding infection. This subject, therefore, requires more study before concluding that the cotton rat is a natural reservoir of infection.

Cotton, rice, and wood rats, as well as laboratory white mice, all have been successfully bred in the laboratory in order to assure an abundant supply of known animals for experimental work. A simple method of breeding fleas has been devised and is producing in abundance.

Some work has been carried out on the flea feces complement fixation test described by Pollard, Davis and Olson (1). Tests on normal flea feces have indicated that these are often anti-complementary in the dilutions employed. Further work must be done before reaching any conclusion as to the utility of this test.

An abandoned building quite remote from human habitation was prepared to make it as attractive as possible to rats by providing abundant harborage and food. One hundred known negative and ectoparasite free rats, *R. rattus*, were released simultaneously in the building. Trapping and re-trapping has been taking place in the building and surrounding territory. Contrary to expectation, over 90% of the rats appeared to have left the building soon after release and only nine have been re-trapped in surrounding territory. The remaining population has begun to multiply and has become infested with ectoparasites. The ob-

ject of this experiment is to observe the multiplication of rats and their ectoparasites under known conditions over a period of at least one year.

All human typhus cases which occurred in the county during the years 1947 and 1948 were investigated and reports of investigations submitted to state and county health departments. There were 37 cases in 1947 and 11 cases to the end of November in 1948. Of the total of 48 cases in the two year period, 25 were believed to have been infected at home, 10 at business establishments, and in 13 cases the probable source of infection could not be determined. Thirty-seven cases were of urban origin and 11 rural.

There would seem to be no reason to doubt that organized control measures carried out by the health department have contributed to the decrease in typhus in recent years. A decrease has been noted, however, in areas where very little, if any, control measures have been applied. In order to determine what factors other than organized control might be operating against the spread of typhus, a house to house canvas was conducted in four areas in the City of Tampa which were representative of the various economic strata in the population. In 589 interviews, occupants were questioned as to prevalence of rats now as compared to former years, the keeping of poultry now as compared to formerly, the use of insecticidal sprays or powders containing DDT and measures applied by the householder to combat rat infestation. It was found that in the first and middle class residential districts, there had been some decrease in poultry rearing since the war years. The use of insecticidal sprays containing DDT was found to be very common. From 80 to 90% of persons interviewed reported using such sprays. It was believed that this factor of all those investigated was the most important as a contributory one toward the reduction of typhus.

In order to gain information as to the past incidence of typhus in the human population of Florida the pre-marital serum specimens submitted to the various laboratories of the Florida State Board of Health for examination for syphilis were examined for complement fixing antibodies for murine typhus. To the end of November, 2844 of these specimens had been examined, of which 187 or 6.6% showed positive fixation in dilution of 1:4 or more. Approximately 1000 of the specimens were from persons with addresses in Hillsborough County. The remainder were from persons residing in 58 of the state's 66 other counties. This study is being continued with the ultimate objective of examining 10,000 specimens representative of the entire adult population of the state.

The study of complement fixing antibodies in the sera of human beings at varying intervals after infection from one week to four years was completed and results reported in the scientific literature (2). These results were summarized in the Annual Report for 1947.

VETERINARY PUBLIC HEALTH

J. E. SCATTERDAY, D.V.M., Director

A Veterinary Public Health Program was started January 1948 and has completed its first full year. This program is concerned with those diseases of animals communicable to man. These diseases may be broken down into two divisions—those communicable by contact and those spread by animals and animal products as food.

Rabies has been and persists in being a major problem as demonstrated in Table XV.

The estimated dog population in Florida is roughly 312,000 or one dog to 6.2 people. Sixty-eight thousand eight hundred and seventy-seven (68,877) dogs were reported vaccinated this year (1948), but not all veterinarians reported in response to a questionnaire. Approximately 22% of the dog population is protected by vaccination. Authorities on the control of rabies state that at least 60% of the dog population should be vaccinated to effectively control the disease.

Five-hundred and twelve (512) animal heads were examined in 1948; 332 were found positive, and one human case reported. Thirteen hundred and twenty-two (1322) anti-rabies treatments were issued by the State Board of Health.

The majority of cities in Florida have had some type of dog ordinance enforced in varying degrees. Many towns and cities have good vaccination and dog control programs and rabies has either been eliminated or brought under control. Other cities, even though rabies is prevalent have not seen fit to attempt wholehearted effort to combat it.

Local ordinances have been adopted this year in most communities where outbreaks have occurred. These have been patterned after the proposed state wide regulations and fair enforcement has been obtained. The weakness of all programs has been the control of the strays and a better system of collection and impounding of those unowned or owned dogs which run at large unvaccinated should be devised.

In Leon County where fox rabies was prevalent a very efficient trapping program was conducted. This was in cooperation with the Florida Fresh Water Fish and Game Commission, the U. S. Fish and Wild Life Service, represented by Mr. Canup, the Leon County Health Department, and farmers of Leon County. Between 600 and 700 foxes were trapped in 90 days. This has so far controlled the disease in these animals and no case of fox rabies has been reported for some time. Madison County paid a bounty on all foxes destroyed. This did not prove too effective. Floods throughout North Florida, where fox rabies existed, occurred at

TABLE XV
TOTAL NUMBER OF ANIMAL RABIES REPORTED BY COUNTY — 1948, FLORIDA

| COUNTY | TOTAL | DOGS | CATS | CATTLE | HORSES | SHEEP | GOATS | SWINE | MISCELLANEOUS | SPECIES UNK. |
|--------------|-------|------|------|--------|--------|-------|-------|-------|---------------|--------------|
| Alachua | | | | | | | | | | |
| Baker | | | | | | | | | | |
| Bay | | | | | | | | | | |
| Bradford | | | | | | | | | | |
| Brevard | | | | | | | | | | |
| Broward | | | | | | | | | | |
| Calhoun | | | | | | | | | | |
| Charlotte | 5 | 4 | | 1 | | | | | | |
| Citrus | 1 | 1 | | | | | | | | |
| Clay | | | | | | | | | | |
| Collier | | | | | | | | | | |
| Columbia | 1 | 1 | | | | | | | | |
| Dade | 58 | 39 | 8 | | | | | | | 11 |
| DeSoto | | | | | | | | | | |
| Dixie | | | | | | | | | | |
| Duval | 5 | 8 | | | | | | | 2 | |
| Escambia | | | | | | | | | | |
| Flagler | | | | | | | | | | |
| Franklin | | | | | | | | | | |
| Gadsden | 7 | 6 | 1 | | | | | | | |
| Gilchrist | | | | | | | | | | |
| Glades | | | | | | | | | | |
| Gulf | | | | | | | | | | |
| Hamilton | | | | | | | | | | |
| Hardee | | | | | | | | | | |
| Hendry | | | | | | | | | | |
| Hernando | | | | | | | | | | |
| Highlands | | | | | | | | | | |
| Hillsborough | 85 | 79 | 8 | 1 | | | | | 1 | 1 |
| Holmes | | | | | | | | | | |
| Indian River | | | | | | | | | | |
| Jackson | 14 | 12 | 1 | 1 | | | | | | |
| Jefferson | 5 | 1 | 2 | | 1 | | | | 1 | |
| Lafayette | 3 | | 1 | | | | | | 2 | |
| Lake | 5 | 4 | | | | | | | 1 | |
| Lee | | | | | | | | | | |
| Leon | 28 | 11 | 1 | | | | | | 16 | |
| Liberty | | | | | | | | | | |
| Madison | 7 | 4 | | 1 | | | | | 2 | |
| Manatee | | | | | | | | | | |
| Marion | 1 | 1 | | | | | | | | |
| Martin | | | | | | | | | | |
| Monroe | 2 | 2 | | | | | | | | |
| Nassau | | | | | | | | | | |
| Okaloosa | | | | | | | | | | |
| Okeechobee | | | | | | | | | | |
| Orange | 2 | 1 | 1 | | | | | | | |
| Osceola | 1 | 1 | | | | | | | | |
| Palm Beach | | | | | | | | | | |
| Pasco | | | | | | | | | | |
| Pinellas | 6 | 6 | | | | | | | | |
| Polk | 2 | 2 | | | | | | | | |
| Putnam | | | | | | | | | | |
| St. Johns | 9 | 8 | 1 | | | | | | | |
| St. Lucie | | | | | | | | | | |
| Santa Rosa | | | | | | | | | | |
| Sarasota | | | | | | | | | | |
| Seminole | 1 | 1 | | | | | | | | |
| Sumter | | | | | | | | | | |
| Suwannee | 1 | | | | | | | | 1 | |
| Taylor | 4 | 4 | | | | | | | | |
| Union | | | | | | | | | | |
| Volusia | 79 | 70 | 3 | 2 | | | | | | 4 |
| Wakulla | | | | | | | | | | |
| Walton | | | | | | | | | | |
| Washington | | | | | | | | | | |
| TOTAL | 332 | 261 | 22 | 6 | 1 | — | — | — | 26 | 16 |

NOTE: ONLY ONE CASE OF HUMAN RABIES WAS REPORTED FOR 1948—
(Hillsborough County)

whelping time and much of the cover and county where foxes ranged was under water. This, I believe, had much to do with controlling the disease. Where fox rabies was prevalent, considerable loss in livestock was reported, both in work stock, horses, mules, and cattle—a much larger figure than appears on the chart has been reported and diagnosed clinically, but not confirmed by the laboratory so were not reported.

A Veterinary Public Health Laboratory has been set up in the Bureau of Laboratories, sponsored by the Veterinary Division of the U. S. Public Health Service and the Florida State Board of Health. This laboratory will aid in better diagnosing and identifying those diseases of animals communicable to man.

To combat Brucellosis, cities and towns have been encouraged to adopt a clause in their existing milk ordinances requiring one of the various brucellosis control programs or plans approved by the Florida State Live Stock Sanitary Board and the U. S. Bureau of Animal Industry. Several cities have seen fit to do this and through the cooperation of the above mentioned organizations and their personnel much has been accomplished.

Many county sanitarians are working in cooperation with the local practitioners, federal and state veterinarians, arranging for and assisting with the blood testing of the family milk cows for Brucellosis. This is a service which the rural family appreciates and for which no charge is made when done by the state and federal veterinarians.

Seventy-four cases of brucellosis or undulant fever were reported in 1948. This, we feel, is a very low figure and many more cases were not diagnosed as such, as the percentage of infection in cattle and hogs in Florida would indicate a much higher percentage of human infection.

Bovine tuberculosis has largely been eliminated from the United States, but the harder job of finding and eliminating the small foci of infection still exists. This, in Florida, is a bigger task than in many of the other states, Florida being a dairy cattle importing state, not raising its replacement cattle but importing them from various southern states and as far north as Ohio and Wisconsin. The Florida State Milk Laws require an annual test of all cattle from which milk is sold, regardless if it is to be consumed raw or pasteurized. The larger milk areas enforce this fairly well, but other areas are lax, and bovine tuberculosis is on the increase in those areas. This must be corrected and the proper stress placed on healthy cattle in Florida dairies. The U. S. Public Health Service Code and the Florida Milk Regulations rate the health of the cow so high that no dairy should be rated as Grade A unless the required annual test for tuberculosis is complied with.

Surveys of abattoirs and slaughtering plants have been made in many of the Florida counties regarding the inspection and sanitation of meat and meat products. With the exception of the federally inspected plants, of which Florida has three, the fourteen state inspected plants, supervised by the Florida Live Stock Sanitary Board, and a very few of the municipi-

pal abattoirs, much needs to be corrected in this field of Veterinary Public Health as a large portion of the meat slaughtered and processed has no inspection whatever and no regard given to sanitation nor the ingredients put into processed meats, such as sausage, etc.

As Public Health Veterinarian we have assisted in the Florida State Board of Health Training Center in Alachua County with regards to training in milk inspection, meat inspection, and rabies control. Two classes of sanitary officers, fifteen in one group, five in another, were given training. Also, five health officers have received some training.

INDUSTRIAL HYGIENE

J. M. McDONALD, M.D., Director

The program of the Industrial Hygiene Division was described in detail in the Annual Report for 1947. Briefly, it includes a continuation of surveys in plants not hitherto visited; organization of the analytical laboratory; attention to requests; planned studies of lead exposures, phosphate mining, and citrus dermatitis; investigation of occupational disease claims; cooperation with the Florida Industrial Commission; cooperation with other state and local agencies; and training of personnel.

In all, 321 visits were made to 216 plants employing 34,522 people. This includes 62 visits to 51 plants for the purpose of making technical studies of potential hazards. The number of improvements recommended was 40. Contacts were made with many industries not hitherto visited. Among the more interesting industries contacted during the year were the Naval Air Training Base at Pensacola, and the Jacksonville Naval Air Station.

TABLE XVI
OCCUPATIONAL DISEASE CLAIMS
January 1, 1948—December 31, 1948

| | |
|---|------|
| TOTAL | 1317 |
| Conjunctivitis | 235 |
| Welders | 208 |
| Chemical | 5 |
| Other | 22 |
| Infection | 47 |
| Meat | 19 |
| Other | 28 |
| Repeated Motion, Pressure and Shock | 15 |
| Temperature Changes | 23 |
| Respiratory Irritations | 32 |
| Gases | 6 |
| Metals | 4 |
| Lead | 3 |
| Zinc | 1 |
| Carbon Tetrachloride | 1 |
| Diagnosis Indefinite | 8 |
| Dermatitis | 946 |
| Fruit | 117 |
| Alkali | 255 |
| Solvents & Oils | 121 |
| Other Chemicals | 125 |
| Plant | 40 |
| Fungus | 77 |
| Larva Migrans | 116 |
| Actinic | 2 |
| Parasite | 10 |
| Other | 83 |

The analytical laboratory made 816 analyses on the 221 samples submitted. The blood and urine lead determinations inaugurated last year appear to have been much appreciated because the number of samples received in 1948 was 97 as compared with 22 in 1947. In addition, two determinations of mercury in urine were done. The work of the laboratory was required to cover a very wide range because of the number of nuisance complaints investigated throughout the year.

Requests for services totaled 66, including one from the Greyhound Bus Lines on methods for determining carbon monoxide concentrations, one from the Seaboard Railway for the prevention of dermatitis, one for prevention of injury in the engraving industry, one for analysis of dust in a local electric plant, and several for information on the laws and regulations for the protection of health of industrial employees in Florida. Among the 14 complaints investigated was one relating to gases discharged from a phosphorus plant; another from a pulp and paper plant; and two others from lead smelters. The study of the discharge from the phosphorus plant required much time and effort, both in the taking of samples and their analysis. It has been rather surprising to note the amount of atmospheric pollution in the State of Florida where the geographical and meteorological factors would be expected to favor the speedy dispersion of smoke and fumes.

The study of lead hazards was continued on a broader scale to include several plants not hitherto covered. Technical studies were done in 3 smelters and 7 storage battery plants. The citrus dermatitis study was continued by visits to all plants engaged in peeling and sectionizing citrus fruit. All occupational diseases reported in the industry were investigated. Employment figures were obtained and dermatitis incidence rates were calculated. The results of the calculations were embodied in a report, a copy of which has been sent to all the plants visited. This report will serve as a benchmark for future investigations. A preliminary investigation was made into the occurrence of dermatitis from larvae migrans.

During the year 204 occupational disease claims were investigated. In this connection it is interesting to note that the investigation of a group of occupational diseases in 1947 paved the way for a full-scale investigation in 1948 of the hazards encountered in cleaning out the sludge from the condenser tank at a phosphorus plant.

Cooperation with the Workmen's Compensation Division of the Florida Industrial Commission continued, the most striking incident being the study of the cause of three deaths which occurred in cleaning out a shallow well used by a packing plant in the Everglades. Late in the year, two other requests for studies were received. One of these concerned a potential hazard from exposure to silica dust in a small monument job. The other request was in connection with a nuisance complaint already under investigation.

With the assistance of the Bureau of Health Information, division personnel assembled the material for the March issue, 1948, of Florida

Health Notes, which was devoted entirely to industrial hygiene. In addition to sending 80 copies to various state and local industrial hygiene agencies, more than 200 copies have been distributed among the industries of the state. The reception of this issue has been very favorable. Seventeen abstracts were written for Excerpta Medica.

The annual meeting of the American Conference of Governmental Hygienists in Boston was attended.

The director joined the Nassau County Medical Society and attended five of their meetings.

TABLE XVII
SUPPLY SECTION
DRUGS AND BIOLOGICS DISPERSED, 1948

| | Average Per Month | Annual Total |
|--|----------------------|-----------------|
| Bismuth, 30cc | 41 | 497 |
| Bismuth, 60cc | 15 | 185 |
| Bismuth, 500cc | 1 | 18 |
| Clorarsen, .067 | 298 | 3,579 |
| Clorarsen, 0.67 | 46 | 555 |
| Crystoids, bottles of 5 caps. | 776 | 9,312 |
| Diphtheria Anti-Toxin, 10,000 Units | 71 | 856 |
| Diphtheria Anti-Toxin, 20,000 Units | 61 | 732 |
| Diphtheria Tetanus Combined, 1cc | 4 | 45 |
| Diphtheria Tetanus Combined, 2cc | 22 | 265 |
| Diphtheria Tetanus Combined, 10cc | 26 | 311 |
| Diphtheria Tetanus Combined, 30cc | 105 | 1,258 |
| Diphtheria Toxoid, 5.0cc | 2 | 33 |
| Diphtheria Toxoid, 10cc | 295 | 3,547 |
| Diphtheria Pertussis Vaccine, Sauer, 6cc | 30 | 368 |
| Diphtheria Pertussis Vaccine, Sauer, 24cc | 39 | 473 |
| Diphtheria Pertussis Tetanus Combined, 1cc | 0 | 2 |
| Diphtheria Pertussis Tetanus Combined, 3cc | 0 | 10 |
| Diphtheria Pertussis Tetanus Combined, 10cc | 829 | 9,955 |
| Immune Serum Globulin, 2cc | 607 | 7,291 |
| Insulin, Globin, 10-U-40 | 160 | 1,921 |
| Insulin, Globin, 10-U-80 | 128 | 1,532 |
| Insulin, Plain, 10-U-20 | 17 | 206 |
| Insulin, Plain, 10-U-40 | 299 | 3,590 |
| Insulin, Plain, 10-U-80 | 95 | 1,149 |
| Insulin, Protomine Zinc, 10-U-40 | 49 | 592 |
| Insulin, Protomine Zinc, 10-U-80 | 462 | 5,546 |
| Mapharsen, .06 | 440 | 5,284 |
| Mapharsen, 0.6 | 129 | 1,551 |
| Penicillin, 100,000 Units | 447 | 5,364 |
| Penicillin, 200,000 Units | 138 | 1,664 |
| Penicillin, 500,000 Units | 1 | 17 |
| Penicillin, 10cc vials, 300,000 Units, (POB) | 567 | 6,811 |
| Penicillin, 1cc vials, (GC KITS) | 339 | 4,070 |
| Pertussis, Upjohn, 5cc | 47 | 570 |
| Pertussis, Upjohn, 10cc | 16 | 196 |
| Pertussis, Upjohn, 20cc | 57 | 685 |
| Pertussis, Sauer, 24cc | 50 | 610 |

| | | |
|---|------|--------|
| P. P. D. Tuberculin, 1st Strength (per pkgs. of 10) | 50 | 597 |
| P. P. D. Tuberculin, 2nd Strength (per pkgs. of 10) | 40 | 488 |
| Rabies Vaccine (per 14 dose series) | 110 | 1,322 |
| Schick Test, vials 5cc (50 test) | 66 | 790 |
| Silver Nitrate (per pkgs. of 2 each) | 964 | 11,575 |
| Sulfathiazole Tablets (per bottle of 1,000 each) | 25 | 305 |
| Tuberculosis Patch Tests (10 to a package) | 171 | 2,059 |
| Tarter Emetic | 18 | 219 |
| Tetanus Anti-Toxin, 1,500 Units | 149 | 1,792 |
| Tetanus Anti-Toxin, 10,000 Units | 67 | 811 |
| Tetanus Toxoid, 1cc | 51 | 615 |
| Tetanus Toxoid, 30cc | 274 | 3,285 |
| Tetrachlorethylene, 8 min., 5cc | 1236 | 14,835 |
| Tetrachlorethylene, 16 min., 5cc | 714 | 8,567 |
| Tryparsamide, 1.0 | 5 | 60 |
| Tryparsamide, 2.0 | 6 | 70 |
| Tryparsamide 3.0 | 6 | 70 |
| Typhoid Paratyphoid Combined Vaccine, 20cc | 641 | 7,688 |
| Typhoid Paratyphoid Combined Vaccine, 50cc | 77 | 926 |
| Vaccine Points, (per pkgs. of 10 each) | 802 | 9,620 |
| Water, Distilled, 50cc bottles | 291 | 3,487 |
| Water, Distilled, 100cc bottles | 552 | 6,629 |

BUREAU OF TUBERCULOSIS CONTROL

C. M. SHARP, M.D., Director

The general activities of the Bureau of Tuberculosis Control have continued to increase, and as a result of the intensified efforts a larger volume of information is available this year than was reported in the 1947 annual report. This report will be more or less written in line with the 1947 report so that a comparison can be made concerning the volume of work performed, and the epidemiological findings with regard to the tuberculosis problem in the State of Florida further clarified.

DEATH RATE

No analysis of the tuberculosis situation in a community would be complete without studying the death rate. As a contrast to 1947, the figures show that there has been as much decrease in tuberculosis deaths during the year of 1948 as there was an increase over the year of 1946. The total death rate for 1948, in spite of the fact that population estimates in the State as a whole have increased, shows that there were 720 deaths from tuberculosis in Florida as against 760 deaths during the year 1947. The mortality rate during the year 1948 has declined to 29.1 per 100,000 population as contrasted to a rate of 31.6 per 100,000 during 1947. This rate represents the lowest tuberculosis mortality rate in the history of Florida, and is lower than in any other southeastern state. In fact, it is considerably lower than the national average for tuberculosis.

It should be noted that the mortality rate for the white population in the State has reached the rate of 17.5 per 100,000 population, which in this group compares very favorably with the best states in the country. The Negro mortality rate, however, still remains high, although there has been a decrease from 68.0 per 100,000 population during 1947 to 66.9 per 100,000 during 1948.

It is believed that the addition of the 500-bed sanatorium in Tampa, and the 200-bed sanatorium in Marianna, where advanced cases of the disease can receive the necessary isolation, is finally beginning to show results, since it has definitely been proven from a public health standpoint that tuberculosis rates can be decreased if adequate provisions are available to isolate the infectious cases of the disease.

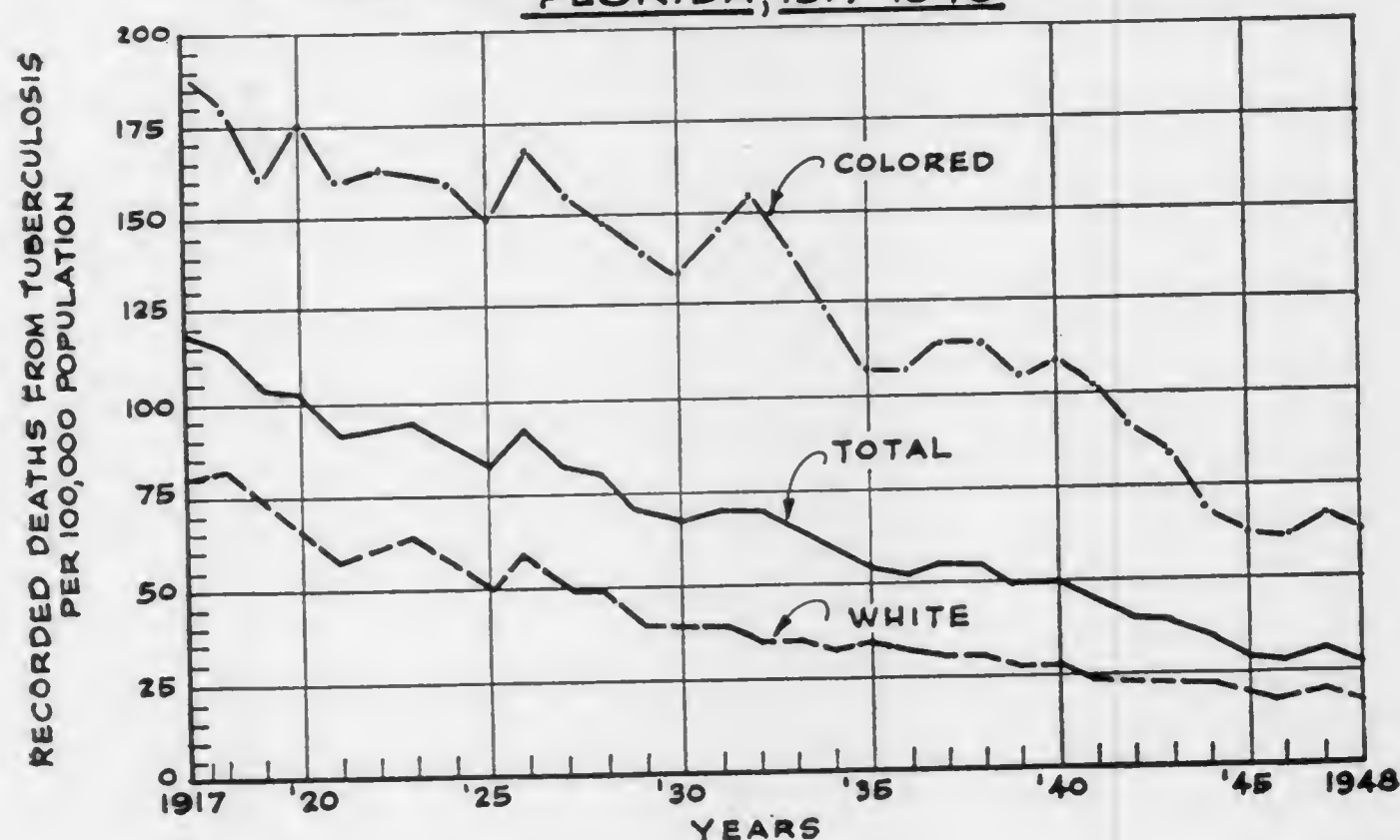
Table XVIII shows the recorded deaths from tuberculosis and the death rate per 100,000 population, by race, from the year 1917 through 1948. Fig. 1 shows the mortality rate in graph form with the definite decreases as demonstrated in the table.

TABLE XVIII

RECORDED DEATHS FROM TUBERCULOSIS (ALL FORMS) AND DEATH RATES
PER 100,000 POPULATION, BY COLOR, FLORIDA — 1917-1948

| YEAR | TOTAL | | WHITE | | COLORED | |
|------|--------|-------|--------|------|---------|-------|
| | DEATHS | RATE | DEATHS | RATE | DEATHS | RATE |
| 1948 | 720 | 29.1 | 332 | 17.5 | 388 | 66.9 |
| 1947 | 760 | 31.6 | 371 | 20.2 | 389 | 68.0 |
| 1946 | 687 | 29.4 | 333 | 18.8 | 354 | 62.7 |
| 1945 | 701 | 30.9 | 340 | 19.9 | 361 | 64.9 |
| 1944 | 791 | 36.0 | 369 | 23.1 | 422 | 70.8 |
| 1943 | 834 | 39.2 | 363 | 22.9 | 471 | 87.1 |
| 1942 | 859 | 41.8 | 360 | 23.6 | 499 | 93.6 |
| 1941 | 916 | 46.1 | 362 | 24.8 | 554 | 105.5 |
| 1940 | 961 | 50.3 | 379 | 27.2 | 582 | 112.4 |
| 1939 | 921 | 49.7 | 376 | 27.9 | 545 | 107.3 |
| 1938 | 987 | 55.0 | 407 | 31.4 | 580 | 116.4 |
| 1937 | 966 | 55.6 | 400 | 32.0 | 566 | 115.8 |
| 1936 | 905 | 53.9 | 387 | 32.3 | 518 | 108.2 |
| 1935 | 903 | 55.7 | 397 | 34.5 | 506 | 107.9 |
| 1934 | 953 | 60.1 | 381 | 33.9 | 572 | 123.9 |
| 1933 | 1,039 | 66.9 | 398 | 36.1 | 641 | 142.1 |
| 1932 | 1,093 | 71.5 | 395 | 36.5 | 698 | 156.2 |
| 1931 | 1,067 | 70.8 | 427 | 40.1 | 640 | 144.8 |
| 1930 | 1,015 | 68.6 | 432 | 41.3 | 583 | 134.0 |
| 1929 | 1,014 | 70.8 | 416 | 41.3 | 598 | 140.6 |
| 1928 | 1,102 | 79.7 | 481 | 49.7 | 621 | 149.5 |
| 1927 | 1,097 | 82.2 | 483 | 49.8 | 614 | 156.4 |
| 1926 | 1,187 | 92.3 | 519 | 58.3 | 668 | 169.0 |
| 1925 | 999 | 80.8 | 426 | 50.0 | 573 | 148.7 |
| 1924 | 1,054 | 88.7 | 457 | 56.2 | 597 | 159.1 |
| 1923 | 1,079 | 94.7 | 490 | 63.3 | 589 | 161.2 |
| 1922 | 1,019 | 93.5 | 440 | 59.9 | 579 | 163.0 |
| 1921 | 951 | 91.3 | 401 | 57.6 | 550 | 159.3 |
| 1920 | 1,016 | 102.3 | 423 | 64.3 | 593 | 176.8 |
| 1919 | 993 | 103.7 | 461 | 73.4 | 532 | 161.6 |
| 1918 | 1,084 | 115.9 | 494 | 81.2 | 590 | 180.4 |
| 1917 | 1,085 | 118.9 | 472 | 80.3 | 613 | 188.7 |

FIGURE 1
TUBERCULOSIS DEATH RATES, BY COLOR
FLORIDA, 1917-1948



REPORTED CASES

A rather intensive effort has been made during 1948 in a study of the morbidity from tuberculosis in the State. This has been made from several sources; one, by the reporting of the disease in clinics operated by the State Board of Health and by the local health departments; another, by reporting from private physicians and general hospitals as well as by sanatoria. Out-of-state notifications, death certificates and Veterans Hospitals, as well as the newly organized Selective Service, have also been sources of reports which have been analyzed.

During the year 1948 the tuberculosis cases reported by age, sex and stage of the disease have been analyzed on punch cards by the number of cases per county and the number of deaths per county. This is well demonstrated in Table XIX. In some instances, there have been rather marked increases in the number of cases reported for each death, but this is a relative figure since the population differences in many of the counties far outweigh the reported cases. For instance, in Hillsborough County there were 6.54 cases reported per each death from tuberculosis, while in Duval County there were only 2 cases reported per each death. In Dade County—which is our largest county—there were 4 cases reported per each death.

During 1948 there were 3,313 cases of tuberculosis reported in the State of Florida which shows a rather marked decrease over the 4,335 cases reported in 1947. The primary reason for this decrease in the number of cases reported is believed to be due to the fact that there were not nearly so many old cases newly reported for 1948. For instance, the annual report for 1947 showed that over 25 percent of all cases reported to the State Board of Health were old cases which were previously known to some other source, but which were first reported to the health department. During 1948, however, practically all of the cases reported represent new cases of tuberculosis found. For example, the new cases reported in 1947 were 3,251 whereas in 1948 there were 3,112, there being only 201 old cases newly reported, which accounts for the decrease in the number of cases reported.

An analysis of the source of reporting is shown in Figure 2 which shows a comparison in the percentage of tuberculosis cases reported by source of report in Florida for 1947 and 1948. It continues to show that there is a marked increase in the amount of reporting from county and city health departments with a consequent decrease in the reporting of the disease by private physicians as well as by general hospitals.

There has been no appreciable reduction in the number of cases first reported by death certificate. Four percent were reported by death certificate in 1947 and the same figure holds true for 1948. There have been fewer cases reported from the Veterans Administration, and also fewer cases reported from other sources.

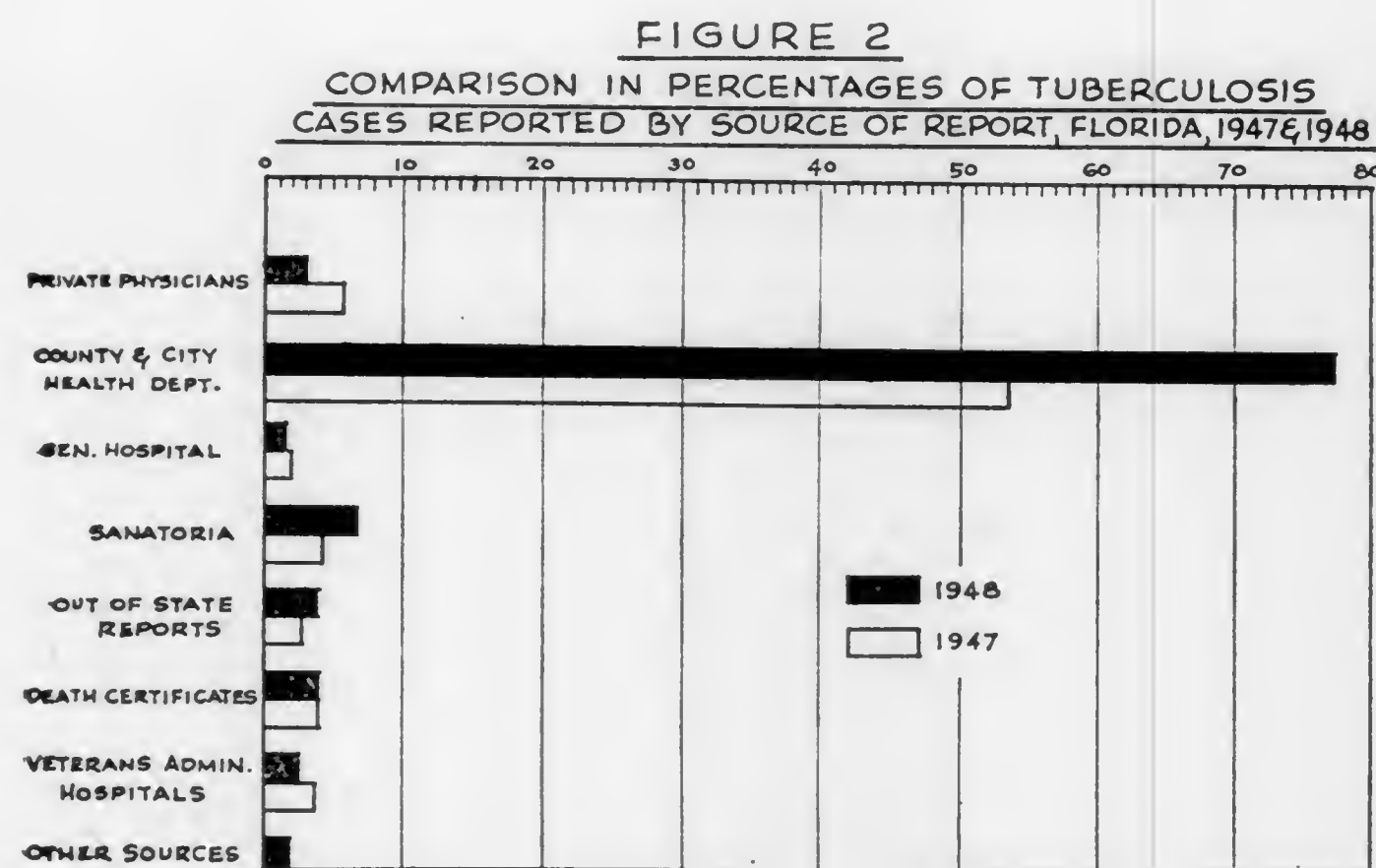
TABLE XIX
TUBERCULOSIS CASES REPORTED BY RACE, SEX AND STAGE OF DISEASE WITH RESIDENT DEATHS
AND NUMBER OF CASES PER DEATH BY COUNTY, FLORIDA, 1948

| AND NUMBER OF CASES PER DEATH BY COUNTY, FLORIDA, 1918 | | | | | | | | | | | | | | |
|--|----------------|--------------|--------|---------|--------|------------------|---------|---------|---------------------|--------------|---------------|---------------|--------|-----------------|
| COUNTY | CASES REPORTED | | | | | | | | | | | | | |
| | Total Cases | RACE AND SEX | | | | STAGE OF DISEASE | | | | | | | | |
| | | WHITE | | COLORED | | Unknown | Primary | Minimal | Moderately Advanced | Far Advanced | Non Pulmonary | Stage Unknown | Deaths | Cases Per Death |
| | | Male | Female | Male | Female | | | | | | | | | |
| TOTAL | 3,913 | 1,523 | 943 | 442 | 287 | 118 | 1,134 | 912 | 797 | 44 | 409 | 733 | 4.52 | |
| Alachua | 42 | 19 | 9 | 6 | 7 | 1 | 21 | 8 | 7 | — | 4 | 14 | 3.00 | |
| Baker | 4 | 2 | — | 1 | 1 | — | — | — | 3 | — | — | 1 | 4.00 | |
| Bay | 34 | 17 | 9 | 3 | 5 | — | 11 | 14 | 5 | — | 4 | 4 | 6.80 | |
| Bradford | 6 | 3 | 1 | 1 | 1 | — | — | — | 4 | — | 1 | 2 | 3.00 | |
| Brevard | 16 | 6 | 6 | 1 | 2 | — | 3 | 6 | 3 | — | 1 | 4 | 4.00 | |
| Broward | 131 | 53 | 51 | 17 | 9 | 1 | 54 | 38 | 16 | 1 | 21 | 20 | 6.55 | |
| Calhoun | 4 | 3 | — | 1 | — | — | 1 | 1 | 1 | — | — | 2 | 2.00 | |
| Charlotte | 8 | 5 | 2 | 1 | — | — | 1 | 1 | 1 | — | 1 | 3 | 1.00 | |
| Citrus | 8 | 4 | — | 1 | — | — | 1 | 1 | 4 | — | 1 | 2 | 4.00 | |
| Clay | 2 | 1 | — | — | — | — | — | — | 2 | — | — | — | 2.17 | |
| Collier | 13 | 7 | 1 | 3 | 1 | — | 3 | 4 | 4 | 1 | 1 | 6 | 3.99 | |
| Columbia | 499 | 259 | 146 | 48 | 29 | 22 | 163 | 129 | 152 | 11 | 44 | 125 | 9.50 | |
| Dade | 19 | 10 | 6 | 2 | 1 | — | 8 | 8 | 2 | — | — | 2 | 2.08 | |
| DeSoto | 3 | 2 | 1 | — | — | — | 43 | 55 | 92 | 7 | 41 | 115 | 4.68 | |
| Dixie | 239 | 92 | 48 | 49 | 46 | 9 | 32 | 53 | 38 | — | 21 | 31 | 2.00 | |
| Duval | 145 | 68 | 40 | 21 | 15 | 1 | 1 | 2 | 3 | — | — | 2 | 3.00 | |
| Escambia | 2 | — | 1 | 2 | 1 | — | 1 | — | 3 | — | — | 10 | 1.50 | |
| Flagler | 6 | 3 | 1 | 2 | 7 | 2 | 3 | 2 | 4 | 1 | 3 | 3 | 0.67 | |
| Franklin | 15 | 4 | — | 2 | 2 | 3 | 10 | 9 | 4 | — | 2 | 2 | 2.00 | |
| Gadsden (Ex.) | 27 | 9 | 4 | 10 | 1 | — | — | — | — | — | 2 | 2 | 5.50 | |
| State Hospital | 2 | 1 | — | 1 | 1 | — | — | — | 2 | — | — | 2 | 1.33 | |
| Gilchrist | 4 | 1 | 1 | 1 | 3 | — | 5 | 4 | 1 | — | 1 | 3 | — | |
| Glades | 11 | 4 | 2 | — | 1 | 1 | 1 | 1 | 3 | — | — | — | 3.50 | |
| Gulf | 4 | 1 | 1 | 1 | 1 | 1 | 3 | 5 | 1 | — | 3 | 2 | 1.50 | |
| Hamilton | 11 | 7 | 1 | 4 | 1 | 1 | 3 | 1 | 3 | — | — | 1 | 2.20 | |
| Hardee | 8 | 3 | — | 2 | 1 | — | — | — | 3 | — | 1 | 5 | 6.37 | |
| Hendry | 11 | 6 | 1 | 2 | 3 | 1 | 3 | 1 | 8 | — | 35 | 76 | 10.00 | |
| Hernando | 11 | — | — | — | — | — | — | — | — | — | — | 1 | 6 | |
| Hillborough | 484 | 252 | 154 | 49 | 18 | 11 | 200 | 154 | 89 | 6 | 4 | 16 | 2.83 | |
| Holmes | 10 | 7 | 5 | 3 | 1 | — | 6 | 4 | 3 | — | — | — | 4.67 | |
| Indian River | 17 | 7 | 5 | 3 | 2 | — | 19 | 7 | — | — | — | — | — | |
| Jackson | 42 | 23 | 12 | 5 | 2 | — | 3 | — | — | — | 7 | 9 | — | |

TABLE XIX CONTINUED
TUBERCULOSIS CASES REPORTED BY RACE, SEX AND STAGE OF DISEASE WITH RESIDENT DEATHS
AND NUMBER OF CASES PER DEATH BY COUNTY, FLORIDA, 1948

| COUNTY | CASES REPORTED | | | | | | | | | | | | | Cases Per Death |
|------------|----------------|--------------|--------|---------|--------|------------------|---------|---------|---------------------|--------------|---------------|---------------|---------------------|-----------------|
| | Total Cases | RACE AND SEX | | | | STAGE OF DISEASE | | | | | | | | |
| | | WHITE | | COLORED | | Unknown | Primary | Minimal | Moderately Advanced | Far Advanced | Non Pulmonary | Stage Unknown | Tuberculosis Deaths | |
| | | Male | Female | Male | Female | | | | | | | | | |
| Jefferson | 7 | 1 | 2 | 2 | 2 | — | — | 1 | 5 | 5 | — | 1 | 3 | 2.33 |
| Lafayette | 2 | 1 | 1 | 3 | 3 | — | — | — | 8 | — | — | — | — | — |
| Lafayette | 23 | 10 | 6 | 4 | 3 | — | — | — | 11 | 8 | — | 1 | 11 | 2.09 |
| Lake | 30 | 14 | 6 | 5 | 1 | — | — | — | 15 | 7 | — | 1 | 6 | 5.00 |
| Lee | 42 | 14 | 10 | 9 | 4 | 4 | 2 | — | 15 | 7 | 3 | 7 | 8 | 5.25 |
| Leon | 7 | 1 | 2 | — | — | — | — | — | 1 | 4 | — | 2 | 3 | 2.33 |
| Levy | 1 | 1 | — | — | — | — | — | — | 5 | — | — | — | — | — |
| Liberty | 17 | 5 | 1 | 5 | 6 | — | — | — | 19 | 3 | — | 4 | 4 | 2.83 |
| Madison | 18 | 22 | 18 | 11 | 5 | 1 | 1 | — | 16 | 9 | — | 5 | 4 | 13.00 |
| Manatee | 52 | 13 | 8 | 14 | 5 | 2 | — | — | 6 | 17 | — | 13 | 24 | 1.75 |
| Marion | 42 | 1 | 1 | 1 | 1 | 1 | — | — | 5 | 2 | — | 6 | 1 | 9.00 |
| Martin | 9 | 2 | 4 | 4 | 1 | — | — | — | 4 | 6 | — | — | 8 | 2.63 |
| Monroe | 21 | 11 | 6 | 4 | 2 | — | — | — | 1 | 3 | — | 1 | 3 | 1.00 |
| Nassau | 7 | 2 | 2 | 2 | 1 | — | — | — | 4 | 2 | — | 4 | 3 | 4.33 |
| Nassau | 13 | 9 | 4 | — | — | — | — | — | 1 | 3 | — | 1 | 3 | — |
| Okaloosa | 4 | 3 | 1 | — | — | — | — | — | 1 | 2 | — | — | — | — |
| Okeechobee | 265 | 118 | 89 | 80 | 21 | 7 | — | — | 78 | 61 | 1 | 28 | 38 | 6.97 |
| Orange | 9 | 5 | 4 | 3 | 4 | — | — | — | 1 | — | — | 2 | — | — |
| Osceola | 281 | 122 | 86 | 34 | 25 | 14 | — | — | 153 | 61 | 38 | 28 | 30 | 9.37 |
| Palm Beach | 8 | 6 | 1 | 14 | 8 | 15 | — | — | 72 | 48 | 2 | 4 | 6 | 1.33 |
| Pasco | 190 | 88 | 65 | 17 | 7 | 8 | 2 | — | 28 | 31 | 18 | 18 | 28 | 6.79 |
| Pinellas | 97 | 39 | 26 | 3 | 4 | 2 | — | — | 5 | 5 | 6 | 4 | 6 | 4.85 |
| Polk | 20 | 4 | 3 | 3 | 4 | 2 | — | — | 6 | 4 | 2 | 3 | 7 | 3.83 |
| Putnam | 9 | 4 | 3 | 1 | 1 | 2 | — | — | 6 | 7 | 1 | 3 | 7 | 1.29 |
| St. Johns | 24 | 8 | 2 | 9 | 3 | 2 | 1 | — | 4 | 9 | 2 | — | 7 | 3.43 |
| St. Lucie | 13 | 10 | 18 | 5 | 3 | — | — | — | 5 | 6 | — | 2 | — | — |
| Santa Rosa | 63 | 37 | 18 | 7 | 3 | — | — | — | 17 | 10 | 6 | 11 | 8 | 7.88 |
| Sarasota | 22 | 5 | 4 | 4 | 3 | 3 | — | — | 4 | 12 | — | 2 | 7 | 3.14 |
| Seminole | 10 | 5 | 1 | 7 | 3 | — | — | — | 4 | 5 | — | 3 | 4 | 2.50 |
| Sumter | 15 | 6 | 6 | 3 | 2 | — | — | — | 7 | 2 | 1 | 3 | 4 | 3.75 |
| Suwannee | 21 | 5 | 5 | 8 | 1 | — | — | — | 11 | 3 | 3 | 2 | 5 | 4.20 |
| Taylor | 31 | 6 | 6 | 4 | 2 | 2 | — | — | 12 | 7 | 3 | 9 | 1 | 81.00 |
| Union | 102 | 21 | 88 | 9 | 13 | 2 | 1 | — | 31 | 25 | 29 | 16 | 16 | 6.38 |
| Volusia | 6 | 4 | 2 | — | — | — | — | — | 2 | 3 | 1 | — | — | — |
| Wakulla | 7 | 2 | 4 | 1 | — | — | — | — | 5 | — | — | 1 | — | — |
| Walton | 11 | 8 | 5 | 1 | 1 | 1 | — | — | 3 | 4 | — | 3 | 4 | 2.75 |

Another factor which concerns the reporting of cases is that in 1948 there was an appreciable increase in the number of cases first reported from state tuberculosis sanatoria. This represents $7\frac{1}{2}$ percent of all the cases reported as against only 4 percent during 1947. This data is shown in Figure 2.



A detailed total breakdown of the number and percentage of tuberculosis cases by race and sex is shown in Table XX. There is not a tremendous variation in the percentage reported in 1947 and 1948. We still find that the white male occupies the highest position. Forty-six percent of all cases reported were among white males, and white females averaged 28.5 percent of all cases reported. A striking feature of this table, however, shows that in spite of the fact that the tuberculosis mortality rate among Negroes is almost four times that of the white population of the State, which would lead one to assume that the morbidity among the Negroes would be higher—this is certainly not borne out by the figures shown in Table XX. The morbidity among Negroes shows that 13.3 percent of the cases reported were colored males and 8.7 percent were colored females, making a total of 22.0 percent of all reported cases among Negroes. The exact significance of this is rather difficult to state. Whether it represents a certain racial susceptibility to the disease, or whether it represents strictly an economical factor is one of those intangible things which certainly cannot be determined without a considerable amount of controversy. It could be entirely due to the fact that the diagnosis is established in fewer Negroes than it is in the white population group.

TABLE XX
COMPARISON OF NUMBER AND PERCENTAGE OF REPORTED TUBERCULOSIS CASES
BY RACE AND SEX, FLORIDA, 1947 AND 1948

| | 1948 | | 1947 | |
|----------------|-------|---------|-------|---------|
| | CASES | PERCENT | CASES | PERCENT |
| TOTAL | 4,335 | 100.0 | 3,313 | 100.0 |
| White Male | 1,987 | 45.8 | 1,523 | 46.0 |
| White Female | 1,289 | 29.7 | 943 | 28.5 |
| Colored Male | 614 | 14.2 | 442 | 13.3 |
| Colored Female | 445 | 10.3 | 287 | 8.7 |
| Unknown | — | — | 118 | 3.6 |

It will again be noted—as would be expected—that the largest number of cases continue to be reported from the larger county health departments where more people live, but it should also be pointed out that the mortality rates among these larger health departments is higher. The largest number of cases reported was from Dade County where 499 new cases were reported; in Hillsborough County 484 new cases were reported; in Orange County 356 cases were reported; in Palm Beach County 381 new cases were reported, and in Duval County 339 new cases were reported.

It is interesting to observe in studying the morbidity of tuberculosis that in Palm Beach County, which is a new health department, there were 9 cases reported for each recorded death, and in Orange County there were 7 cases reported for each recorded death; Hillsborough County reported 6 cases for each recorded death while Dade County reported only 4 cases for each recorded death, and Duval County reported 2 cases for each recorded death.

Table XXI shows the number and percentage of tuberculosis cases reported by age groups during the year 1948 which is well represented in Figure 3. An analysis of this graph shows that the highest incidence of tuberculosis cases reported is between the age group from 45 to 54, and the second highest between the age group from 35 to 44. This corresponds fairly well with the mortality figures for the same age groups.

TABLE XXI
NUMBER AND PERCENTAGE OF TUBERCULOSIS CASES REPORTED BY AGE GROUPS,
FLORIDA, 1948

| AGE GROUPS | CASES | PERCENT |
|------------|-------|---------|
| TOTAL | 3,313 | 100.0 |
| -5 | 18 | 0.5 |
| 5-14 | 18 | 0.5 |
| 15-24 | 274 | 8.3 |
| 25-34 | 536 | 16.2 |
| 35-44 | 633 | 19.1 |
| 45-54 | 669 | 20.2 |
| 55-64 | 524 | 15.8 |
| 65+ | 438 | 13.2 |
| Unknown | 203 | 6.1 |

FIGURE 3
PERCENTAGE OF TUBERCULOSIS CASES
REPORTED, BY AGE GROUPS, FLORIDA 1948

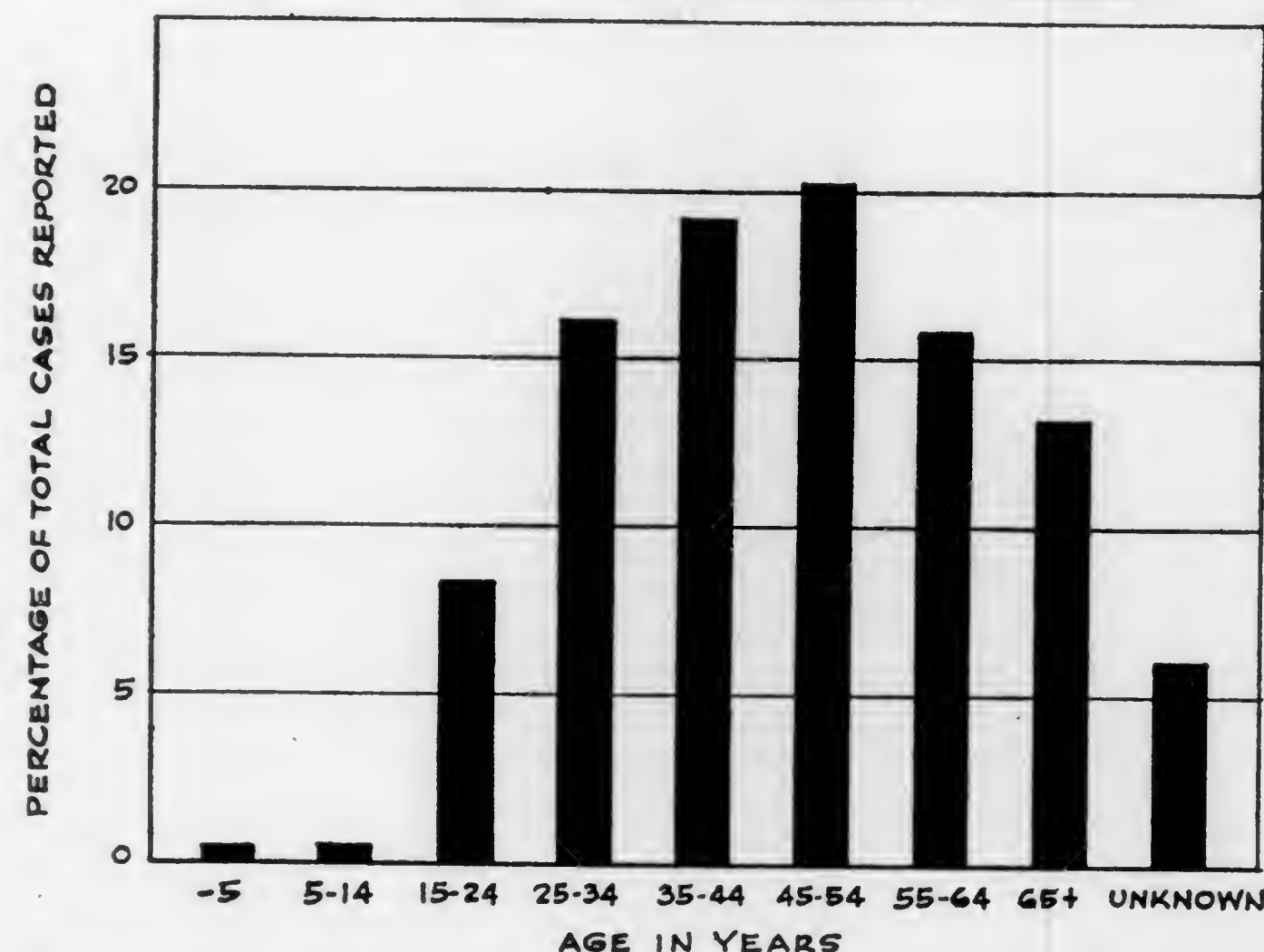
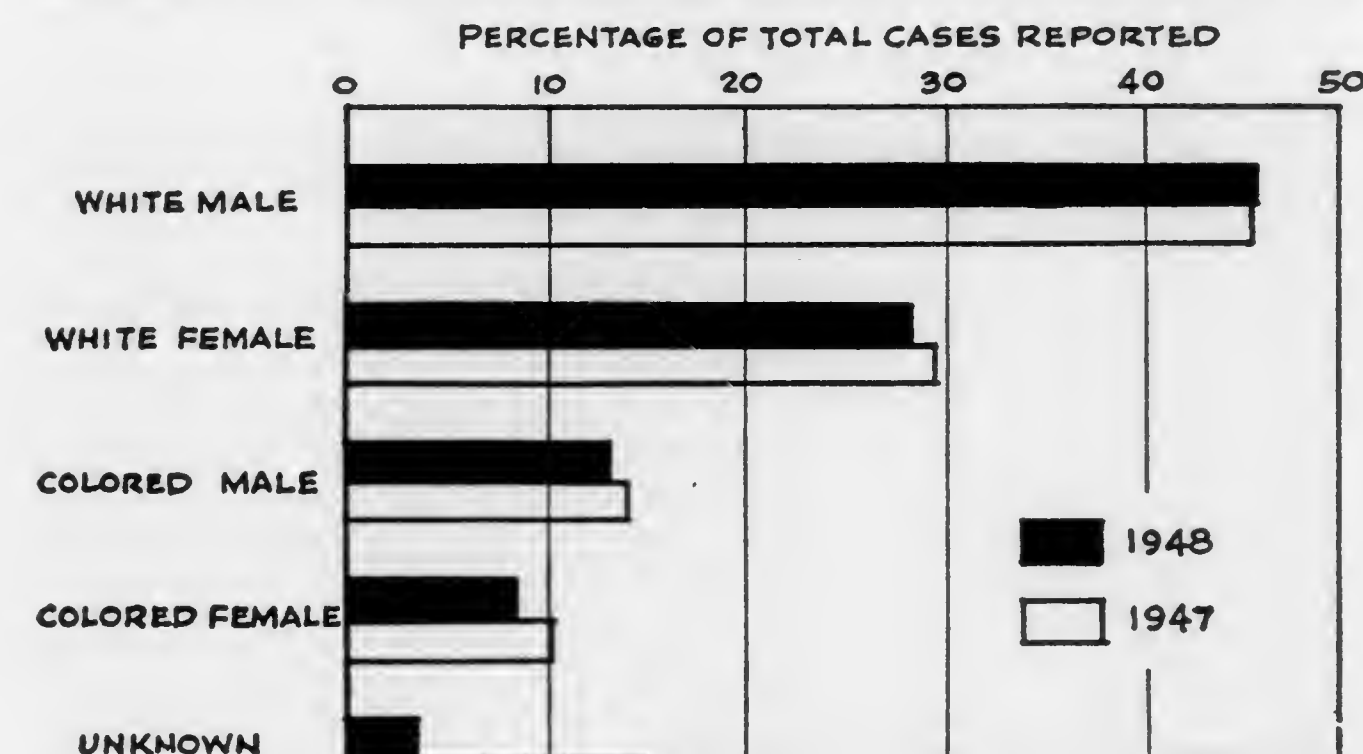


Figure 4 illustrates a comparison between the cases reported for 1947 and those reported in 1948. As stated before, there is no striking difference between the percentage of the total cases reported for 1947 and 1948 in either the white or colored population. It does bear out the fact, however, that there were a slightly larger number of white males reported and a slightly smaller number of colored males and females reported during 1948.

FIGURE 4
COMPARISON OF PERCENTAGE OF TUBERCULOSIS
CASES REPORTED BY RACE & SEX, FLORIDA, 1947 & 1948



An analysis of the Central Case Register shows that 34 of the more populous counties have operating case registers at the present time which are duplicated in the State Office. This is shown in Table XXII which gives the number of active cases in the register, the number of questionably active, the number of inactive, and those in sanatoria. It will be noted that the cases represented in the Central Case Register have increased from 7,417 as of December 31, 1947 to 8,850 as of December 31, 1948. This shows that better controls have been established over the cases in the State.

Table XXII also is revealing in that it shows the number of patients with positive sputum who are residing in their homes. There were 871 cases with positive sputum at home and 2,033 with undetermined sputum which were considered active cases. There were 503 cases residing at home with negative sputum who were also considered as active cases. There were also 831 cases in the home who were considered as questionably active. These known cases show that there are potentially 4,238 persons who possibly need hospitalization who are not receiving treatment. In addition, there were 1109 cases in sanatoria during 1948 as compared with 1360 in 1947. Table XXII also shows the cases in the register with current status residing at home.

TABLE XXII
ANALYSIS OF CASES IN THE CENTRAL TUBERCULOSIS CASE REGISTER
DECEMBER 31, 1948

| COUNTIES | Active Cases | | Undetermined Sputum | O. Act. Cases | Inact. Cases | In Sanatoriums | Other TBC | Total Cases | Current in Examination | % of Patients Current Out-side of State |
|----------------------|--------------|-------------|---------------------|---------------|--------------|----------------|-----------|-------------|------------------------|---|
| | Pos. Sputum | Neg. Sputum | | | | | | | | |
| Alachua | 8 | 18 | 15 | 37 | 104 | 28 | 0 | 210 | 90 | 42.9 |
| Baker | 1 | 1 | 0 | 2 | 8 | 3 | 0 | 15 | 6 | 40 |
| Bay | 4 | 8 | 22 | 24 | 56 | 30 | 2 | 146 | 37 | 25.3 |
| Bradford | 0 | 2 | 3 | 6 | 7 | 3 | 0 | 19 | 7 | 37 |
| Broward | 16 | 7 | 14 | 38 | 72 | 23 | 2 | 172 | 119 | 69.2 |
| Dade | 195 | 131 | 776 | 167 | 734 | 258 | 34 | 2,295 | 372 | 16.2 |
| Dixie | 0 | 1 | 1 | 5 | 5 | 0 | 0 | 12 | 10 | 83.3 |
| Duval | 22 | 12 | 14 | 30 | 48 | 34 | 0 | 138 | 57 | 41.3 |
| Escambia | 18 | 13 | 69 | 4 | 177 | 69 | 2 | 378 | 87 | 23.1 |
| Franklin | 0 | 1 | 3 | 4 | 3 | 6 | 0 | 17 | 7 | 41.1 |
| Gadsden | 12 | 1 | 26 | 16 | 47 | 14 | 0 | 116 | 30 | 25.8 |
| Gulf | 1 | 1 | 3 | 6 | 5 | 8 | 0 | 24 | 11 | 45.8 |
| Hernando | 7 | 2 | 7 | 2 | 8 | 1 | 0 | 27 | 3 | 11.1 |
| Hillsborough | 194 | 26 | 472 | 78 | 716 | 109 | 5 | 1,600 | 313 | 19.6 |
| Jackson | 14 | 12 | 23 | 17 | 30 | 17 | 0 | 113 | 34 | 30.1 |
| Lafayette | 1 | 0 | 3 | 2 | 2 | 1 | 0 | 9 | 4 | 42.2 |
| Lake | 13 | 7 | 21 | 31 | 41 | 21 | 0 | 100 | 25 | 25 |
| Leon | 6 | 5 | 3 | 10 | 16 | 13 | 0 | 74 | 17 | 23 |
| Levy | 1 | 1 | 7 | 3 | 7 | 3 | 0 | 34 | 43 | 58.1 |
| Manatee | 4 | 2 | 5 | 10 | 27 | 8 | 1 | 77 | 45 | 58.4 |
| Monroe | 5 | 3 | 5 | 20 | 41 | 11 | 0 | 77 | 19 | 24.4 |
| Nassau | 8 | 2 | 9 | 14 | 18 | 7 | 0 | 56 | 19 | 34.1 |
| Orange | 54 | 51 | 91 | 77 | 218 | 73 | 1 | 565 | 5 | 0.9 |
| Pasco | 5 | 4 | 7 | 17 | 29 | 67 | 2 | 35 | 5 | 14.3 |
| Pinellas | 24 | 11 | 18 | 50 | 139 | 55 | 4 | 400 | 250 | 62.5 |
| Polk | 24 | 16 | 41 | 37 | 137 | 55 | 1 | 326 | 152 | 46.6 |
| Santa Rosa | 2 | 5 | 9 | 6 | 36 | 9 | 1 | 49 | 7 | 14.3 |
| Sarasota | 5 | 2 | 4 | 14 | 21 | 9 | 0 | 69 | 29 | 42 |
| Seminole | 8 | 9 | 5 | 9 | 41 | 21 | 0 | 94 | 14 | 14.9 |
| Sumter | 3 | 1 | 1 | 2 | 6 | 2 | 0 | 15 | 6 | 40 |
| Suwannee | 2 | 0 | 1 | 10 | 9 | 4 | 0 | 26 | 19 | 73 |
| Volusia | 14 | 22 | 10 | 87 | 189 | 34 | 0 | 389 | 80 | 20.8 |
| Wakulla | 1 | 1 | 1 | 4 | 6 | 2 | 0 | 13 | 9 | 69.2 |
| Washington | 2 | 2 | 8 | 11 | 6 | 6 | 0 | 35 | 12 | 34.3 |
| City of Jacksonville | 157 | 60 | 251 | 16 | 230 | 156 | 10 | 880 | 175 | 19.9 |
| State Hospital— | 45 | 63 | 59 | 58 | 134 | — | 0 | 359 | 125 | 34.8 |
| Chattahoochee | — | — | — | — | — | — | — | — | — | — |
| TOTAL | 871 | 503 | 2,033 | 831 | 3,437 | 1,109 | 66 | 8,850 | 2,479 | 28.01 |

DIAGNOSTIC CLINICS

All of the permanent diagnostic clinics in local health departments as well as the itinerant clinic operated by the Bureau of Tuberculosis Control have shown a marked increase in activities over 1947. During 1947 there were 9,434 large 14x17" X-rays read by the Bureau of Tuberculosis Control received from local health departments, consultation films from private physicians, the itinerant clinic, and from tuberculosis and health associations. During 1948 this service has increased rather markedly to 13,538 X-rays interpreted. This is shown in Table XXIII. Sixty percent of all large films read during 1948 were initial X-ray films and 39.5 were subsequent or follow-up X-ray films. Table XXIII also shows the number of negative films, the number of minimal, moderately advanced and far advanced cases found, also the patients with thoracoplasty and pneumothorax, broken down by age and color.

Of the films interpreted, approximately 18 percent showed evidence of tuberculous pathology and an additional 8.5 percent showed evidence of suspicious tuberculous pathology. In 1947 twenty-three percent of all X-rays examined showed evidence of tuberculous pathology. In addition to the tuberculous pathology found on the films read in 1948, 4.6 percent showed evidence of pathology other than tuberculosis. It is rather significant that of all the patients examined, 322 cases, or 2.4 percent showed evidence of far advanced tuberculosis, while 1460, or 10.8 percent showed evidence of minimal pulmonary tuberculosis by large film X-ray. This is in marked contrast to previous figures and to the type of patient previously admitted to tuberculosis hospitals where approximately 70 to 80 percent of all admissions were in the advanced stages of the disease. There were, however, fewer minimal cases of tuberculosis found in clinic and consultation X-rays during 1948 than in 1947.

MASS CASE FINDING

The principal activity of the Bureau of Tuberculosis Control during the year 1948 was in the field of mass X-ray survey, using portable and mobile 70 mm X-ray equipment which we have continued to concentrate on community-wide X-ray services.

During the second full year of operation of the four mobile and portable survey units carried into communities by the State Board of Health, and the two stationary X-ray units operated by the Dade County Health Department and the Hillsborough County Health Department as well as mobile units operated by the Dade County Tuberculosis Association, the Polk County Health Department, and the Orange County Tuberculosis and Health Association, there were 415,599 adults of the State of Florida examined. This represents approximately 20 percent of the population of the State and is an increase over the 315,696 films taken during the year 1947. During 1948 a total of 1,306 cases of definite tuberculosis were found and 3,167 cases of suspicious tuberculosis pathology were demonstrated. In addition to the tuberculous pathology

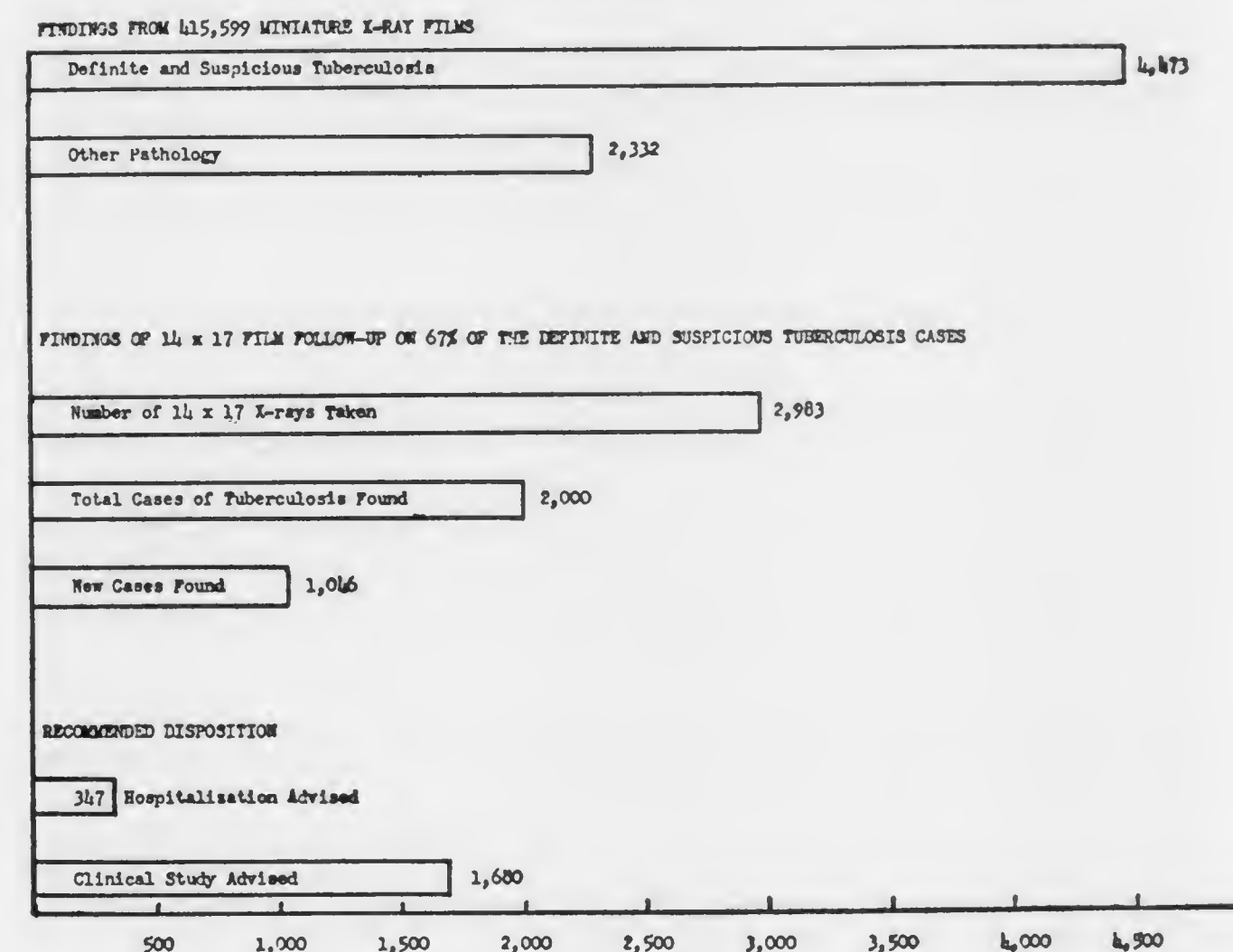
TABLE XXIII
TOTAL NUMBER OF CLINIC AND CONSULTATION X-RAYS INTERPRETED DURING THE YEAR 1948
DIVIDED INTO STAGE OF DISEASE, AGE, SEX AND COLOR, WITH PERCENTAGE
OF PATHOLOGY IN THE VARIOUS CATEGORIES

| Age | Color and Sex | First Film | Second Film | Unsat- isfactory | Minimal | Moderate | Far | Thoracoplasty | Pneumothorax | Susp. | Pri- mary | Other Path. | Totals |
|-------------|---------------|------------|-------------|---------------------|---------|----------|----------|---------------|--------------|-------|--------------|----------------|--------|
| | | | | Negative | Active | Inactive | Advanced | Active | Inactive | | | | |
| 0-10 | W-M | 169 | 84 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 10 | 253 |
| | W-F | 195 | 108 | 13 | 0 | 1 | 1 | 0 | 0 | 0 | 13 | 8 | 303 |
| | C-M | 70 | 49 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 3 | 119 |
| 11-20 | W-M | 370 | 196 | 7 | 6 | 9 | 1 | 0 | 0 | 1 | 31 | 10 | 566 |
| | W-F | 434 | 216 | 11 | 6 | 6 | 1 | 0 | 0 | 3 | 18 | 20 | 649 |
| | C-M | 199 | 112 | 5 | 0 | 2 | 1 | 0 | 0 | 0 | 7 | 2 | 311 |
| 21-30 | W-M | 569 | 272 | 6 | 18 | 12 | 10 | 1 | 0 | 0 | 59 | 0 | 841 |
| | W-F | 759 | 405 | 18 | 20 | 16 | 7 | 0 | 0 | 18 | 54 | 1 | 1,164 |
| | C-M | 261 | 99 | 6 | 1 | 2 | 3 | 0 | 0 | 1 | 17 | 0 | 360 |
| 31-40 | W-M | 549 | 363 | 8 | 27 | 24 | 25 | 2 | 1 | 9 | 59 | 0 | 912 |
| | W-F | 664 | 454 | 17 | 23 | 17 | 30 | 0 | 1 | 14 | 71 | 0 | 1,118 |
| | C-M | 231 | 117 | 4 | 10 | 12 | 3 | 0 | 0 | 30 | 0 | 11 | 348 |
| 41-50 | W-M | 453 | 380 | 18 | 23 | 34 | 45 | 0 | 2 | 14 | 76 | 0 | 833 |
| | W-F | 437 | 337 | 14 | 4 | 14 | 30 | 0 | 0 | 6 | 64 | 0 | 774 |
| | C-M | 170 | 113 | 2 | 4 | 10 | 10 | 0 | 0 | 5 | 29 | 0 | 283 |
| 51-60 | W-M | 365 | 361 | 18 | 44 | 31 | 44 | 0 | 0 | 99 | 0 | 56 | 726 |
| | W-F | 311 | 276 | 13 | 6 | 108 | 31 | 10 | 0 | 67 | 0 | 31 | 587 |
| | C-M | 88 | 67 | 7 | 6 | 7 | 6 | 0 | 0 | 21 | 0 | 16 | 166 |
| 61 AND OVER | W-M | 464 | 402 | 13 | 28 | 49 | 59 | 0 | 0 | 142 | 1 | 101 | 866 |
| | W-F | 362 | 217 | 10 | 14 | 18 | 29 | 1 | 0 | 79 | 0 | 74 | 579 |
| | C-M | 91 | 90 | 7 | 3 | 8 | 10 | 0 | 0 | 22 | 0 | 19 | 181 |
| | C-F | 76 | 50 | 4 | 3 | 2 | 2 | 0 | 0 | 15 | 0 | 8 | 126 |
| TOTALS | | 8,196 | 5,342 | 245 | 272 | 290 | 366 | 4 | 7 | 1,146 | 62 | 627 | 13,538 |
| PERCENTAGE | | 60.5 | 39.5 | 1.8 | 2.0 | 2.1 | 2.7 | 0.03 | 0.05 | 8.5 | 0.5 | 4.6 | |

demonstrated, 2,332 persons with pathology other than tuberculosis were demonstrated. Table XXIV shows a summary of the mass X-ray surveys along with the 14" x 17" X-ray follow-up and the percentage of follow-up. This table also shows the number of patients for whom hospitalization was recommended after follow-up, and those for whom clinical study was recommended. This is demonstrated in Figure 5.

FIGURE 5

MASS X-RAY SURVEY SUMMARY OF MINIATURE FILM AND 14 x 17 X-RAY FOLLOW-UP 1948



As was the case in 1947, a great deal of the credit for the large number of X-ray films taken is to be given to the Florida Tuberculosis and Health Association and the county tuberculosis and health associations who participated wholeheartedly in a cooperative effort for community organization.

The Florida Tuberculosis and Health Association continues to pay a part of the salary of one of its field secretaries who spent the greater part of her time in organizing communities for the X-ray survey services. We feel certain that any increase in activities that have been brought about were due to a great extent to the activities of this organization.

TABLE XXIV
MASS X-RAY SURVEY SUMMARY OF MINIATURE FILM AND 14 x 17 X-RAY FOLLOW-UP, 1948

| Location | Miniature Films (70mm. & 35mm. films) | | | 14 x 17 Follow-Up on Tuberculosis and suspicious cases | | | Percent Follow-Up |
|----------------------|---------------------------------------|-----------------------|----------------------------|--|--|-----------------------------|-------------------|
| | Persons Examined | Definite Tuberculosis | Suspicious of Tuberculosis | Other Pathology | Persons Followed-Up with 14 x 17 X-Ray | Cases of Tuberculosis Found | |
| Alachua | 7,954 | 8 | 30 | 30 | 22 | 10 | 58.0 |
| Univ. of Fla. | 1,172 | 2 | 4 | 3 | 2 | 1 | 23.3 |
| Univ. of Fla. | 10,833 | 6 | 43 | 14 | 36 | 1 | 74.5 |
| Broward | 13,669 | 46 | 148 | 112 | 164 | 63 | 85.0 |
| Charlotte | 1,333 | 2 | 11 | 5 | 9 | 7 | 69.2 |
| *Dade (Asn.) | 22,399 | 81 | 163 | 178 | 77 | 27 | 31.6 |
| Dade (H. D.) | 13,206 | 12 | 266 | 69 | 236 | 77 | 84.9 |
| DeSoto | 3,314 | 4 | 32 | 22 | 33 | 21 | 91.7 |
| Dixie | 1,372 | 1 | 11 | 18 | 8 | 3 | 66.7 |
| Escambia | 18,560 | 32 | 114 | 75 | 104 | 21 | 71.2 |
| Naval Air Base | 4,444 | 9 | 41 | 15 | 45 | 19 | 90.0 |
| Escambia | 825 | 1 | 4 | 2 | 0 | 0 | 0.0 |
| Franklin | 541 | 1 | 14 | 8 | 12 | 2 | 80.0 |
| Gilchrist | 2,203 | 2 | 17 | 5 | 6 | 1 | 100.0 |
| Gulf | 1,000 | 3 | 16 | 13 | 13 | 3 | 68.4 |
| Hamilton | 1,502 | 1 | 9 | 13 | 7 | 1 | 72.2 |
| Hardee | 59,731 | 92 | 389 | 197 | 829 | 208 | 68.4 |
| Hillsborough | 41,034 | 571 | 80 | 426 | 256 | 0 | 39.2 |
| *Hillsborough (H.D.) | 1,780 | 4 | 15 | 11 | 17 | 3 | 89.5 |
| Holmes | 5,415 | 13 | 44 | 41 | 46 | 12 | 50.0 |
| Jackson | 1,798 | 1 | 11 | 18 | 6 | 1 | 42.9 |
| Jefferson | 504 | 0 | 4 | 3 | 3 | 0 | 0.0 |
| Lafayette | 9,598 | 17 | 85 | 74 | 60 | 25 | 68.9 |
| Lake | 5,580 | 10 | 50 | 24 | 51 | 19 | 85.0 |
| Lee | 13,796 | 7 | 65 | 61 | 61 | 15 | 84.7 |
| Leon | 1,634 | 0 | 5 | 0 | 8 | 0 | 60.0 |
| A. & M. College | 4,710 | 3 | 12 | 13 | 13 | 6 | 86.7 |
| Fla. St. Univ. | 3,052 | 2 | 17 | 14 | 13 | 3 | 88.4 |
| Madison | 7,545 | 9 | 66 | 85 | 74 | 34 | 95.7 |
| Manatee | 1,824 | 4 | 14 | 12 | 10 | 4 | 55.5 |
| Martin | 2,584 | 6 | 30 | 18 | 10 | 3 | 27.8 |
| Okaloosa | 29,100 | 49 | 223 | 131 | 244 | 124 | 59.7 |
| Orange (H. D.) | 10,716 | 19 | 164 | 22 | 118 | 23 | 68.2 |
| Palm Beach | 46,082 | 168 | 555 | 395 | 503 | 201 | 69.6 |
| **Polk (H. D.) | 21,920 | 14 | 112 | 45 | 76 | 14 | 60.3 |
| St. Lucie | 4,437 | 15 | 29 | 13 | 9 | 3 | 43.2 |
| Santa Rosa | 1,981 | 4 | 17 | 7 | 16 | 12 | 76.2 |
| Sarasota | 8,440 | 15 | 78 | 58 | 83 | 41 | 89.2 |
| Suwannee | 1,969 | 6 | 21 | 13 | 21 | 6 | 25.9 |
| Taylor | 3,218 | 12 | 34 | 23 | 36 | 0 | 78.2 |
| Fla. St. Prison | 1,648 | 10 | 17 | 13 | 15 | 5 | 55.6 |
| Volusia | 15,905 | 32 | 80 | 67 | 83 | 18 | 74.1 |
| Wakulla | 1,068 | 2 | 12 | 14 | 7 | 2 | 60.0 |
| Walton | 1,726 | 3 | 10 | 13 | 9 | 2 | 69.2 |
| Washington | 2,150 | 5 | 13 | 15 | 15 | 4 | 83.3 |
| TOTALS | 415,599 | 1,306 | 8,167 | 2,332 | 2,983 | 1,046 | 66.7 |

* State owned, County operated

** Tuberculosis and Health Association units only

TUBERCULOSIS ACTIVITIES IN COUNTIES

The Monthly Activity Report of the Bureau of Local Health Services shows that there were 19,704 clinic visits made during 1948. This is a slight increase over the visits made in 1947. This report also reveals that there were 25,789 field nursing visits made which is approximately the same number of visits made in the preceding year. In addition there were 9,038 office nursing visits made which is a marked increase over the 5,940 office visits made in 1947. Also in 1948 there were 1141 patients hospitalized through the local health departments, while in 1947 there were 1065 patients hospitalized through this source.

SUMMARY

The above report illustrates with a fair degree of accuracy the progress that has been made in the public health aspects of tuberculosis case finding and a study of the extent of the tuberculosis problem in Florida.

There still remains, however, the old problem of isolation and adequate hospitalization. The tuberculosis mortality has shown a decided decrease over the preceding year which we believe can be explained to a large extent by the addition of some 700 beds for the isolation of the infectious cases of the disease. This, however, is not adequate since there are known to be potentially 4,282 patients who need hospitalization. The ultimate control of tuberculosis in the State of Florida, therefore, would seem to resolve itself into a relatively simple formula, and that is to provide a bed for the isolation and treatment of every known case of tuberculosis in the State.

NUTRITION INVESTIGATIONS AND SERVICES

WALTER WILKINS, M. D., Ph. D., Director

The demand for nutrition work in Florida has increased greatly during the past two years. This has occurred in spite of the fact that the average family income has been at an all-time high. It is not an indication that malnutrition is on the increase but rather that more people are appreciating the role that nutrition, good and bad, plays in determining the health level, efficiency, and longevity of both young and old, both rich and poor. The health workers and the private citizens of Florida are showing increasing interest not only in the prevention of malnutrition but in the advantages of what good nutrition has to offer. The emphasis is shifting from "avoiding something" to "gaining something".

This does not mean that the problem of malnutrition has been solved—far from it. But it indicates a growing realization that nutrition is something that affects all of the people all of the time for better or for worse.

During times of economic prosperity the incidence of the severer nutritional diseases usually decreases because more people have more money to spend for food. In spite of painfully high food costs, there are indications that the average Florida family is as well fed as it was before or during the late war.

Someone has said that poor nutrition is due to the three I's: Income (low), Inertia, and Ignorance. There is good evidence that each of these is yielding to the efforts of the various agricultural, educational, and public health workers as well as to the work of many other interested groups and individuals.

The name, Nutrition Investigations and Services, indicates the dual nature of the public health nutrition program in Florida. The investigative work during 1948 has continued along the lines begun two years ago. The service phases are largely educational in character. Emphasis is being placed upon demonstration techniques and other dynamic means of presenting information, stimulating motivation, and generating a desire to "use what we know" about nutrition.

In a broad sense, the entire program is educational in nature since, in the course of investigative work, every opportunity is grasped to create interest in the work that is in progress. It is felt that sometimes more actual "learning" occurs under such conditions than takes place with some of the more conventional methods of teaching. For example, those who have seen it have been impressed by the interest shown by school children of all ages in the tests that are done on their blood. The hemoglobin test is rapidly becoming known as the "red test". How red is my blood?

Why is my blood "low"? What can I do to get it red like it should be? Is Johnnie's blood better than mine? These types of questions are frequently heard by staff members doing hemoglobin and other tests in the schools. If we had the answers to all of the questions the children ask, there would be no need for further nutrition investigations in Florida. What better teaching opportunity could one ask for?

NUTRITION INVESTIGATIONS

EYE CONDITIONS:

Several abnormal eye conditions have been found to be prevalent in some areas. Among these are "poor eyesight" or decreased visual acuity which is all too common in all areas and among all groups. How much of this stems from or is related to nutritional conditions is not known. Extensive studies of this problem are in order and are being planned.

Follicular conjunctivitis (granulated eyelids) is found to occur in as high as 70% of the children in some schools. On the other hand, almost none is found in other schools. Why? We do not have the answers. Several years ago studies conducted by the School of Home Economics at Florida State University suggested that this condition is related to vitamin A intake. A few preliminary tests by our staff have given variable results.

In order to get more definite information on this problem a cooperative study is being conducted by the Florida State Board of Health and Florida State University. In the fall of 1948 a survey was made among the white school children of Leon County to determine the incidence and degree of severity of the condition. Over 2400 children were examined and the following findings on follicular conjunctivitis recorded:

| | Number | Percent |
|--|--------|---------|
| Children Examined | 2,456 | 100.0 |
| Children free of Follicular Conjunctivitis | 1,343 | 54.6 |
| Children with Follicular Conjunctivitis | 1,113 | 45.4 |
| Mild | 912 | 37.1 |
| Moderate | 166 | 7.0 |
| Severe | 35 | 1.4 |

Thus, over 45 percent showed some degree of follicular conjunctivitis.

Between 350 and 400 children were selected for the study. These included most of the severe and moderate cases and over 100 children whose eyelids appeared to be normal. Letters were sent to the parents of these children offering them the opportunity of participating in the study. Visits were also made to some of the homes. The response by both parents and children was almost 100%.

Blood studies were done on both groups to determine the amount of vitamin A present. Therapeutic tests with vitamin A, carotene, and other substances are still under way and will continue until May, 1949.

Every school day the participating children of each school are met in the lunchroom by a worker who "administers" the vitamins, watches each child gulp down his test dose, and records the event on the permanent record.

Whether it will be necessary to continue the work for another year cannot be determined until the initial study is completed.

ACNE:

The studies on acne which were begun in 1947 were continued in 1948. Most of this work has been done in Leon High School and the Elks Club of Tallahassee has assisted in purchasing some of the test materials. The 1947 study gave such promising results that the same general plan was followed in 1948. Again over 200 students participated. All students were carefully examined on two separate occasions before the therapeutic testing was begun. They were divided into three groups of about 75 students each. Cases of different degrees of severity were equally divided among the three groups. The three groups were placed on different combinations of supplements. Each student reported to the nutritionist at the school clinic every school day (five times per week) to take his test dose.

The testing continued for a period of twelve weeks. During this time records were kept of all procedures, absences, etc. As in the previous year, the examiner in doing the final check-up did not know to which group any student belonged. The results were even more encouraging than they were in 1947. They are given in the following table:

| Areas of Face Graded 2* or More on Examination at Beginning | | | | | |
|---|--------------------|--------------|-------------------------|-------------------|---------------------|
| | Type of Supplement | No. of Areas | Average Grade Beginning | Average Grade End | Average Improvement |
| Group I | Control | 170 | 2.2 | 1.9 | .3 |
| Group II | Vitamins A & C | 174 | 2.2 | 1.6 | .6 |
| Group III | Multivitamins | 145 | 2.2 | 1.3 | .9 |
| Areas of Face Graded 3* on Examination at Beginning | | | | | |
| | Type of Supplement | No. of Areas | Average Grade Beginning | Average Grade End | Average Improvement |
| Group I | Control | 40 | 3.0 | 2.7 | .3 |
| Group II | Vitamins A & C | 35 | 3.0 | 2.3 | .7 |
| Group III | Multivitamins | 24 | 3.0 | 1.8 | 1.2 |

* The following code was used to express absence and degree of severity of acne:

- 0 — None
- 1 — Mild
- 2 — Moderate
- 3 — Severe

The results indicate that such vitamin supplementation would be a reasonable supportive measure in the treatment of acne. However, there is no thought that it should be considered primary treatment itself. The results of these tests do not indicate that acne is a "sign of" or due primarily to malnutrition. They do indicate that supplementation with certain nutrients is helpful.

A nutrition questionnaire was filled in by the group under study and by over 800 other students in the school. A summary of the results follows:

Which of the following do you eat at home?

| | Acne Groups Percent of Students | Other Students Percent of Students |
|--|------------------------------------|---------------------------------------|
| 1. Butter | 24.3 | 25.9 |
| Margarine | 15.7 | 17.3 |
| Both | 58.9 | 56.4 |
| Don't know | 1.0 | 0.4 |
| 2. Whole wheat bread | 3.0 | 2.4 |
| White bread | 47.7 | 50.1 |
| Both | 49.2 | 47.5 |
| 3. Iodized salt | 66.0 | 65.7 |
| Plain salt | 10.2 | 15.8 |
| Don't know | 18.8 | 17.2 |
| Both | 5.1 | 1.2 |
| 4. I eat breakfast on school days | | |
| Always | 73.6 | 76.6 |
| Usually | 14.7 | 14.4 |
| Occasionally | 7.6 | 5.1 |
| Almost never | 2.0 | 2.3 |
| Never | 2.0 | 1.7 |
| 5. I eat sweets | | |
| Frequently | 40.6 | 35.2 |
| Occasionally | 55.3 | 60.6 |
| Almost never | 3.6 | 3.9 |
| Never | 0.5 | 0.2 |
| 6. The average amount of milk I drink daily is | | |
| None | 4.1 | 6.9 |
| 1 glass | 17.8 | 16.2 |
| 2 glasses | 29.9 | 29.8 |
| 3 glasses | 22.3 | 21.9 |
| 4 glasses | 16.2 | 16.2 |
| 5 glasses | 4.6 | 3.9 |
| 6 glasses | 3.6 | 2.9 |
| 7 or more | 1.5 | 2.0 |

ANEMIA:

The blood studies on anemia and sub-optimal hemoglobin levels have been continued. Therapeutic testing previously done with iron alone has shown little evidence of increasing such hemoglobin levels. A group of children in Hillsborough County participated in a study to determine whether *iron and copper* supplementation would elevate sub-optimal or

anemic hemoglobin levels. Children from the first through the fifth grades were included as shown in the table below:

| Upper, Middle or lower 1/3 according to beginning Hb. level | Supplement | Average Age | Number Children | Total number tests done | Average Hb. level at beginning | Average Hb. level at end | Average Difference between Hb. levels at beginning and end |
|---|--------------------|----------------|--------------------|----------------------------------|--------------------------------------|--------------------------------|---|
| Upper | Iron | 9.2 | 10 | 176 | 12.9 | 12.5 | 0.4 |
| Middle | " | 8.8 | 10 | 163 | 12.1 | 11.8 | 0.3 |
| Lower | " | 9.1 | 10 | 169 | 11.4 | 11.1 | 0.3 |
| Upper | Iron and Copper | 9.2 | 18 | 238 | 12.7 | 12.3 | 0.4 |
| Middle | " | 9.1 | 19 | 264 | 12.1 | 11.9 | 0.2 |
| Lower | " | 8.6 | 19 | 250 | 11.2 | 11.2 | 0.0 |
| Upper | None | 8.9 | 23 | 290 | 12.6 | 11.9 | 0.7 |
| Middle | " | 8.7 | 23 | 286 | 11.9 | 11.6 | 0.3 |
| Lower | " | 7.6 | 22 | 260 | 10.3 | 10.1 | 0.2 |
| TOTAL | | | 153 | 2,096 | | | |

Several separate hemoglobin tests were done on each child at the beginning and at the end of the testing period of 9 weeks. Although this study was purely preliminary, the results show that, under the condition of the experiment and in the amounts given, there was no elevation of hemoglobin level as a result of the supplementation with iron plus copper.

Plans have been completed for a comprehensive study of anemia and sub-optimal hemoglobin levels in pregnant women. This will necessarily be with smaller groups than similar blood studies on school children. Preliminary indications are that anemia is extremely common in such individuals with somewhat lower average levels in Negro than in white women. This study has been started in cooperation with the Bureau of Maternal and Child Health and the Alachua County Health Unit, and it is anticipated that it will be expanded to include several other areas when time and personnel permit such expansion.

At present iron is being furnished all health departments requesting it for use in prenatal clinics, but we have as yet little information of a local character as to its efficacy, if any, in preventing or alleviating such low hemoglobin levels in pregnancy.

GRANTS OF SUPPLIES:

During the year we received a gift from Mead Johnson & Company of a large supply of testing materials, including:

- 221,000 Thiamine hydrochloride tablets, 1 mg.
- 70,000 Thiamine hydrochloride tablets, 5 mg.
- 68,000 Riboflavin tablets, 1 mg.
- 40,000 Riboflavin tablets, 5 mg.
- 34,000 Ascorbic acid tablets, 100 mg.

PUBLICATIONS DURING THE YEAR:

1. Walker, Vera W., Fowler, Nettie Mae, Geiger, Winnifred. What Shall We Teach Our Children About Food? (Report of a Dietary Study in Union County, Florida.) Published in mimeographed form by Nutrition Investigations and Services, Florida State Board of Health, August, 1948. This study was reviewed in a number of scientific journals and as a result large numbers of copies have been requested by nutrition workers from all over the United States.
2. Wilkins, Walter. Better Nutrition For All. Alaska's Health, October, 1948.
3. Englar, Thomas S., Blakely, Ruth, and Wilkins, Walter. Hemoglobin Studies on Albemarle County School Children. Virginia Medical Monthly, Vol. 75, Pages 236-240, May, 1948.
4. Walker, Vera W. and Wagner, Florence. Workshops in Florida on Food For Children. School Life, April, 1948.
5. Wilkins, Walter, and Boyd, French. NUTRITION FOR YOU, Second Edition. Second printing.

NUTRITION SERVICES

The requests for educational and demonstration services have continually increased. Staff members have taken part in numerous meetings, conferences, teacher workshops, lunchroom workshops, agricultural meetings, and dietetic and home economic meetings within the state. Numerous conferences on nutrition and related problems have been held with public health workers from all sections of the state.

The director, in his capacity of chairman of the Nutrition Committee of the American School Health Association, has kept in touch with nutrition activities in school health programs in different sections of the United States. In spite of the smallness of the staff in proportion to the problems we face, it is felt that definite progress in being made among the school children of Florida. A large part of this is being accomplished by the lunchroom workers and teachers all over the state.

A nutrition manual for use by Nurses is being prepared in cooperation with the Division of Nursing. The plan is being worked out to give every public health nurse in the state an opportunity to indicate what type of manual she would find most useful.

The booklet, NUTRITION FOR YOU, has been widely used throughout Florida and other states. All State, Territorial, and Provincial health departments were extended the invitation to reprint the booklet.

Enrichment of flour, bread, grits and cornmeal has been encouraged. At present Florida is the only state in the deep South not requiring such enrichment. It is hoped that Florida will soon have this progressive legislation and thus benefit along with 25 other states by such advantages modern science has placed at our disposal.

During the year the unit has had numerous visitors from all over the world including Egypt, India, Canada, various South and Central American countries, as well as from many sections of the United States.

BUREAU OF SANITARY ENGINEERING

DAVID B. LEE, M.S. (Eng.), Director

The tabulations of which this brief report is principally comprised afford a statistical picture of physical features of activity in public health engineering in Florida during the year. Equally important, however, are certain phases of this effort which cannot be included in a mere numerical listing. Included in these would be the results of the campaign or program directed toward the abatement of pollution of underground and surface waters of the state. It is felt the citizenry is showing more interest in seeing needed corrections made.

Application of effort of the bureau has continued to be more effective through its regional engineers. This has served to point up the need for further bolstering these local offices, which is planned for the ensuing year under favorable circumstances relating to resources and availability of personnel.

In the latter months of the period, construction costs involved in improving and providing public health utilities appeared to be reaching some degree of stability. Waterworks and sewerage construction will likely be accelerated under more stable economics or a downward trend in costs. The results which have been obtained in the course of river and tidal water studies and subterranean water investigations made by the bureau during the year strongly emphasize the need for going forward with such construction at several points in the state without further delay.

PUBLIC WATER SUPPLY AND TREATMENT

NEW AND PROPOSED CONSTRUCTION

In Table XXV are listed those public water projects for which plans and specifications were received and approved by the Bureau of Sanitary Engineering during 1948. The total number of projects (39) and the estimated cost (\$4,699,776) were both considerably less than those receiving approval in 1946 and 1947. However, it is still evident that improvements and extensions to established plants and construction of complete new water systems is being maintained on a high level. The highlight of the year's progress was the placing in service in November and December of new complete water treatment plans for the cities of High Springs and Gainesville, respectively.

TABLE XXV
PUBLIC WATER SUPPLY PROJECTS APPROVED IN 1948

| MUNICIPALITY | PROJECT | EST. COST |
|---|----------------------------------|-------------|
| West Palm Beach | Additions to chemical equipment | \$ 100,000* |
| Orlando | Water Plant Piping & equipment | 1,835,000* |
| Fort Walton | Additions to water dist. system | 98,300* |
| Florida Industrial School | Water supply system | 44,000 |
| University Park S/D (Miami) | Water system | 9,000** |
| Florida A & M College | Water system extensions | 8,800 |
| Lantana T. B. Sanitorium | Water system | 99,461* |
| Burkett S/D (Jacksonville) | Water system | 10,374* |
| McIntosh | New well and plant improve. | 3,100** |
| Atlantic Beach | Municipal water plant | 150,000 |
| Homesdale S/D (Jacksonville) | Water system | 10,000 |
| Mauham-Butler Inc. (Miami) | Water system | 7,000* |
| Ellinor Village S/D (Pensacola) | Water system | 10,000** |
| Leon Terrace S/D (Jacksonville) | Water system | 10,000** |
| Bond Elementary School | Leon Co.—water system | 3,500 |
| Groveland | Water main extensions | 1,500** |
| Cocoa | Water plant | 100,000* |
| Ellinor Village S/D (Ormond) | Water system | 67,963** |
| Fla. Farm Colony (Gainesville) | Additions to distribution system | 12,814* |
| Biscayne Water Co. (Miami) | Pump house & distribution system | 40,000* |
| N. B. Rood Apt. Gr. (Miami) | Water system | 9,500* |
| Odessa Water Co. (Jacksonville) | Distribution system | 7,500 |
| U. S. Phosphoric Prod. Co.— (E. Tampa) | Additions to existing system | 5,000** |
| Female Corr. Inst. (Ocala) | Water system | 20,000* |
| City of Miami | Upper well field extensions | 60,714* |
| Pinellas Co. Water Company | Clearwater new 16" trans. line | 287,500* |
| Naples | Water works additions | 5,000* |
| Baldwin Public School | Water system | 6,000* |
| Murray Hill Gardens (Jax) | Water system | 15,000 |
| State Hospital (Chattahoochee) | Piping revisions | 6,500* |
| Daytona Beach | Water system additions | 38,950* |
| Homosassa Springs | New water system | 1,200* |
| Apalachee Institute | Jackson Co.—water system | 75,000* |
| Tampa | Water works improvement | 1,330,000* |
| City of Miami | S. W. emergency well field | 165,000* |
| Trenton | Water supply well | 4,100* |
| New Port Richey | Water supply well | 4,000 |
| Miami Pineapple Plantation | Water treatment plant | 35,000 |
| Gainesville | New well | 35,000 |
| | | \$4,731,776 |

* Under construction; ** Completed; Estimated Cost — \$4,418,976.

OPERATION

Bureau activity on operation of public water systems while not as extensive as desired continued to be an important feature of our over-all plan. Routine visits to water plants was more of an activity of regional engineers than of central office personnel. This, however, was in keeping with the purpose for establishing regional offices. This year saw the establishment of the fifth regional office providing decentralized coverage to all sections of the state.

During the year, regional short courses for water, sewage and industrial waste treatment plant operators were held at Clewiston and Clearwater with enthusiastic response from operators and interested persons. The annual five-day Conference and Short Course for Water and Sewage Plant operators held in June at the University of Florida in Gainesville was, as usual, well attended. Bureau personnel engaged in active instruction in both the water and sewage fields as well as providing instruction in swimming pool design and operation.

Pursuant to the statutory obligation of supervising the operation of public water systems, numerous instances of bacterial pollution of systems were investigated and guidance furnished for correction. Situations requiring drastic action to protect public health necessitated, in some cases, recommending that all consumers boil water for drinking and culinary purposes until corrective action was effective. Two extreme cases of pollution of deep well sources of municipal supplies were investigated in detail. In each case, the source of pollution was located and remedial measures prescribed.

WATER SUPPLY WELLS

Following up certain State Statutes which place control of all waters of the State of Florida under the jurisdiction of the State Board of Health, this office approved 61 permits for public water supply wells during 1948. It is suspected that many more public water supply wells were actually drilled without applications being forwarded to this Bureau, but 1948 showed a 30% increase in applications over those received during 1947. This leads this office to hope that through further publication of information informing well drillers of Statute requirements that submission of applications for water well permits will be more nearly universal during the forthcoming year.

Several months of an engineer's time were devoted to the detailed study of pollution of deep-seated ground waters. Cooperation was received from the Federal and State Geological Surveys and the State Division of Water Survey and Research. Surveys and reports were made on the situations in Orange and Suwannee Counties. This work showed clearly that corrective action is urgently needed to prevent ruination of the state's deep well waters.

BOTTLED WATER PLANTS

Operational permits for 30 bottled water plants were issued in 1948. This was an increase of six (6) since 1947. Issuance of these yearly permits is based upon at least annual inspections and approval of bottling

facilities by County and/or State Health Department representatives, and on submission of monthly water samples for bacteriological analysis which must meet the Minimum Standards as recommended by the U. S. Public Health Service and which have been adopted by this department.

SWIMMING POOLS

Swimming pools for public use are permitted on a permanent basis as long as sanitary regulations are observed. In 1948 this office issued permanent permits for operation of 10 pools, making a grand total of 105 pools permitted throughout the State. Plans and specifications were approved for the construction or alteration of 34 pools, estimated cost of which is over one million dollars. Bathing Place permits were issued to 16 public bathing places during the year 1948.

TABLE XXVI
PLANS AND SPECIFICATIONS APPROVED FOR SWIMMING POOLS 1948

| LOCATION | PROJECT | ESTIMATED COST |
|-------------------|---------------------------------------|----------------|
| Miami Beach | Delano Hotel Swimming Pool | \$ 25,000 |
| Miami Beach | Continental Hotel Swimming Pool | 25,000 |
| Rainbow Springs | Rainbow Springs Bath House | 5,000 |
| Coconut Grove | Adirondacks Fla. School Swimming Pool | 4,000 |
| Miami Beach | S. P. Kingston Hotel | 25,000 |
| Duval County | San Jose Swimming Pool | 45,000 |
| Miami Beach | Beach Comber Hotel | 25,000 |
| Miami Beach | White House Hotel | 35,000 |
| Miami Beach | J. I. Wohl Apartments | 25,000 |
| Miami Beach | Norman Shoreham Hotel | 42,000 |
| Vero Beach | Municipal Pool | 15,000 |
| Miami Beach | Sherry-Frontenac Hotel | 55,000 |
| Miami Beach | Sirkin Cabana | 50,000 |
| Palm Beach Shores | Palm Beach Shores, Inc. | 50,000 |
| Miami Beach | Monte Carlo Hotel | 40,000 |
| West Palm Beach | Brown-Dal Corporation (Tourist Court) | 5,000 |
| Miami Beach | Shoremede Hotel | 45,000 |
| Miami Beach | El Morocco Hotel | 50,000 |
| Jacksonville | Timuquana Country Club | 25,000 |
| Palm Beach | Monte Cristo Apartments | 6,000 |
| Sarasota | Florasota Gardens Swimming Pool | 10,000 |
| Miami Beach | Belmar Hotel | 50,000 |
| Miami | South Seas Hotel | 30,000 |
| Hollywood Beach | Additions to existing pool | 2,000 |
| Hollywood Beach | Hollywood Beach Hotel | 25,000 |
| Miami Beach | Soyamore Hotel | 70,250 |
| Miami Beach | Saxony Hotel | 45,000 |
| St. Petersburg | Vinoy Park Hotel | 35,000 |
| Miami | Mr. L. Codomo | 30,000 |
| Miami Beach | Tatem Waterway | 60,000 |
| Delray Beach | H. G. Flagler | 18,000 |
| Miami Beach | Sorrento Hotel | 25,000 |
| Miami Beach | San Juan Hotel | 25,000 |
| Miami Beach | Delmonico Hotel | 35,000 |
| | | \$1,057,250 |

TABLE XXVII
PERMITTED BATHING PLACES AS OF 1948

| COUNTY | NAME | BaP. PERMIT NO. |
|--------------|-----------------------------|-----------------|
| Clay | Spring Cove Bathing Place, | |
| | Green Cove Springs | 10-1-48 |
| | Camp Immokalee | 10-2-48 |
| | Kingsley Beach | 10-3-48 |
| | Keystone Beach | 10-4-48 |
| | Gold Head Branch State Park | 10-5-48 |
| | Seminole Boys Camp | 10-6-48 |
| | Camp Chowenwaw | 10-7-48 |
| Franklin | Gorrie Bridge Bathing Place | 19-1-48 |
| Hamilton | White Springs Bathing Place | 24-1-48 |
| Hillsborough | Forest Hills Country Club | 29-1-48 |
| | Palm Beach Tourist Court | 29-2-48 |
| Leon | Camp Flastacowo | 37-1-48 |
| | Levy's Bathing Place | 37-2-48 |
| Liberty | Lake Mystic | 39-1-48 |
| | White Springs | 39-2-48 |
| Martin | Hospital Pond Bathing Place | 43-1-48 |
| Orange | Lake Estelle | 48-2-48 |
| | Lake Lorna Doone | 48-1-48 |
| Pinellas | Boy Scout Camp Soule | 52-1-48 |
| Wakulla | Wakulla Springs | 65-1-48 |

COMMON CARRIER WATER SUPPLY AND WATERING POINT SANITATION

Each year the U. S. Public Health Service circularizes common carrier companies on or about December 1 for the listing of watering points to be used by them during the next calendar year. About March 1 this list is completed and forwarded to the Bureau of Sanitary Engineering for investigation and recommendation of certification. Continuing cooperative effort with the U. S. Public Health Service, District Office No. 4, New Orleans, La., in common carrier water supply and watering point sanitation, the Bureau's activity in this feature of its program is reflected concisely in the following tabulation.

TABLE XXVIII
COMMON CARRIER WATER SUPPLY AND WATERING POINT INSPECTIONS AND
RECOMMENDATIONS FOR CERTIFICATION TO U. S. PUBLIC HEALTH SERVICE

| | Number of Inspections Made | Railroad Companies Appr'd—Prov. | Air Lines Appr'd—Prov. | Vessel Companies | |
|------------------------------|----------------------------------|---------------------------------------|------------------------------|---------------------|--------------------|
| | | | | Appr'd—Prov. | Appr'd—Prov.—Proh. |
| Water Supply Examination | 57 | 35 — | 7 1 | 13 — | 1 |
| Watering Point Sanitation | 68 | 43 — | 10 1 | 9 4 | 1 |

WASTES TREATMENT AND DISPOSAL

MUNICIPAL SEWERAGE PROJECTS

The high level of planning and design studies for sewers and treatment plants continued throughout 1948. This activity included the approval of plans for (32) projects, having a total estimated cost figure of \$8,376,-935. Seventeen of the above approved projects, with an estimated cost of \$2,961,157 were under bid or construction during the past year. Of the seventeen, ten have been completed to date. A list of the cities for which plans were approved is shown in Table XXIX.

From the standpoint of the treatment of municipal sewage great strides forward have been made. The past year has seen plans put into concrete form for sewerage or sewage treatment plants at the University of Miami, Surfside, Silver Springs, Milton, and Lakewood Subdivision. Construction equipment has been hard at work on sewage treatment plants for: Winter Garden, Winter Park and Daytona Beach. The year ended with the go-ahead signal being given on actual construction of the Orlando sewers and sewage treatment plant and with advance planning on plants for Tallahassee and Lake City. Preliminary surveys were instigated for *Bartow*, *Inverness* and *Tampa*; and advertisement of bids for *Ocala*. Active plans were underway for sewerage projects at Fort Lauderdale, and Vero Beach as well as Panama City and Quincy.

TABLE XXIX
SEWERAGE PROJECTS APPROVED IN 1948

| MUNICIPALITY | PROJECT | \$ ESTIMATED COST |
|--------------------------------|------------------------------------|-------------------|
| Apalachee Institute | Sewage Treatment | 65,000 |
| Bradenton | Interceptor Sewer | 265,367* |
| Baldwin School | Septic Tank & Sand Filter | 12,000* |
| Belle Glade | Sanitary Sewerage Project | 725,000 |
| Brewster | Sewers & Treatment Plant | 362,000 |
| Clewiston | Sewerage Improvements | 66,000 |
| Coral Gables High School | Septic Tanks | 20,000 |
| Daytona Beach | Sewers and Sewage Treatment | 2,290,000* |
| Frostproof | Improvement to Plant | 5,000** |
| Florida Farm Colony | Sewer Additions | 13,390** |
| Female Correctional Institute | Sewers, Septic Tanks, Sand Filters | 40,000* |
| Flagler Beach | Septic Tank | 12,000 |
| Gainesville | Sewer Extensions | 7,000* |
| Jacksonville | Sewer Extensions | 964,000 |
| Jacksonville School System | Septic Tanks, Filters | 18,000 |
| Lakeland | Sewer Extensions | 59,000 |
| Lake Alfred | Sewage Treatment Plant | 25,000** |
| Lake Worth | Sewer System | 860,000 |
| Lantana | Sewerage System | 98,778 |
| Miami Beach | Sewers | 66,000 |
| Miami, 36th Street Airport | Storm Sewers | 140,000** |
| Miami, International Airport | Sewage Plant | 45,500** |
| Manatee County School | Septic Tank, Filters | 5,500** |
| Marianna, Florida Indust. Sch. | Sewerage Project | 55,000* |
| Marietta School | Septic Tank & Sand Filters | 6,000* |
| Palm Beach | Sewer Project | 885,000 |
| Plant City | Sewerage Project | 115,000 |
| Pensacola | Sewer Extensions | 32,000** |
| Sarasota, Manatee Airport | Sand Filters | 7,400** |
| St. Augustine | Sanitary Sewerage Project | 1,100,000 |
| Volusia County Kennel Club | Septic Tank, Filters | 6,000** |
| Wesconnet School | Septic Tank, Filters | 6,000* |
| | | \$8,376,935 |

* Under Construction or Bid On

** Completed

INDUSTRIAL WASTE

Industrial waste problems came in for increased attention during the past year. Disposal of citrus wastes continued to be of primary concern. Probably next in importance was the waste from the pulp and paper mill industry. The phosphate industry continued its financial support of a research program on phosphate wastes. This work is being done under the auspices of the Engineering Experiment Station of the University of Florida in collaboration with the department.

All of the aforementioned industries have expressed a willingness to cooperate with the Florida State Board of Health. Efforts to solve industrial waste problems will be further emphasized particularly if cooperation with industry materializes into the financial assistance so necessary to the making of a comprehensive survey and recommendations.

Plans for the disposal systems for nine laundries have been approved during the year. These plans are the result of the wide use of launderettes. Table XXX lists the laundry plants.

TABLE XXX
PLANS FOR INDUSTRIAL WASTE TREATMENT APPROVED IN 1948

| LOCATION | TYPE OF INDUSTRY | \$ ESTIMATED COST |
|---------------------|------------------|-------------------|
| Miami | Laundry | 2,500 |
| Miami | Laundry | 2,500 |
| Miami | Laundry | 2,500 |
| Miami | Laundry | 2,500 |
| North Miami | Laundry | 2,500 |
| University of Miami | Laundry | 3,000 |
| St. Petersburg | Laundry | 2,700 |
| Pinellas Park | Laundry | 2,000 |
| | | \$20,200 |

DRAINAGE WELLS

Permits were approved for a total of (153) drainage wells in 1948. The applications for approval were carefully reviewed. Most of the permits granted were for the disposal of water from closed air conditioning systems. These were considered as recharge wells since a closed system is used and clean waters are involved. Other well permits approved were for the disposal of surface water, control of lakes and disposal of swimming pool and laundry wastes. The last two categories were approved only if the well was drilled to salt water. Table XXXI shows the distribution, by counties, of these approved wells.

TABLE XXXI
DISTRIBUTION OF APPROVED DRAINAGE WELLS

| COUNTY | NO. OF WELLS |
|------------|--------------|
| Alachua | 1 |
| Broward | 27 |
| Dade | 110 |
| Jackson | 1 |
| Levy | 2 |
| Madison | 2 |
| Orange | 5 |
| Palm Beach | 2 |
| Putnam | 2 |

STREAM POLLUTION

Stream pollution survey work was actively undertaken with the aid of the mobile laboratory truck. Table XXXII lists the surveys conducted during 1948.

TABLE XXXII
POLLUTION SURVEYS

| Location | Principal Pollutant | Status |
|--|-----------------------------|-----------------------------------|
| Apalachicola River & Bay | Domestic waste | completed |
| Manatee River at Bradenton | Domestic waste | completed |
| Rice Creek | Industrial waste | completed |
| Crescent Lake at Crescent City | Domestic waste | completed |
| Lake Tsala Apopka at Inverness | Domestic waste | completed |
| St. Johns River at Palatka | Domestic waste | completed |
| Orlando & Vicinity (Preliminary Groundwater investigation) | Domestic & Industrial waste | completed |
| Live Oak (Preliminary Groundwater investigation) | Domestic & Industrial waste | completed |
| Homosassa (Tidewater area) | Domestic waste | completed |
| St. Augustine (Bay waters) | Domestic waste | report preparation |
| St. Petersburg (Bay waters) | Domestic waste | active survey, preliminary report |
| Indian River (Sebastian Inlet & Vicinity) | Domestic waste | active survey |

A State-wide "sight" pollution survey was conducted by the regional and county sanitary engineers, giving an insight into the sites which should be investigated.

FEDERAL HOUSING ADMINISTRATION (Sewage Disposal and Water Supply)

The tremendous amount of residential construction work in 1948 was reflected by the number of FHA forms approved. This represented the third year of operation of the cooperative agreement between the Florida State Board of Health and the County Health Units on the one hand and the Federal Housing Administration on the other, a modification of the original FHA—State Board of Health working agreement. The Florida State Board of Health and the County Health Department certify individual sewage disposal and water supply systems serving premises for which the property mortgage is insured by the Federal Housing Administration. The following list summarizes this activity:

| Form No. | Description | No. Approved |
|----------------|--|--------------|
| FHA-2218..... | Inspection Report & Certification (Sewage Disposal)..... | 8,382 |
| FHA-2217..... | Inspection Report & Certification (Water Supply)..... | 156 |
| FHA-2084C..... | Subdivision Percolation Report..... | 17 |

TOURIST COURT AND TRAILER CAMPS

There continues to be a high level of activity in the approving and issuing of permits to operate tourist courts and trailer parks. The following list tabulates the activities in this respect.

| | REISSUED | NEW | TOTAL |
|----------------------|----------|-----|-------|
| Tourist Camp Permits | 37 | 293 | 330 |
| Trailer Camp Permits | 48 | 177 | 225 |
| TOTALS | 85 | 470 | 555 |

Together with those trailer park and cabin court permits which continued valid, the reissued permits and permits issued for newly constructed courts and parks brought the total number of *permits in effect for the year to 1803*.

SCHOOLS

Active cooperation has been given the Florida State Department of Education under an extensive school construction and remodeling program. The Florida State Board of Health has endeavored to check the sanitary facilities for all new schools or additions thereto. Inquiries were handled during the last three months of 1948 for the State Department of Education on 15 schools. Investigations were made and plans approved on an additional 18 schools.

SANITARY MILK CONTROL

During 1948, the number of accredited and organized county health units increased to cover sixty-two of the sixty-seven counties. Milk sanitation programs are now in effect and are an active part of the public health programs in over fifty of these city and county health units. Their sanitation activities practically cover the entire Florida dairy industry.

In 1948, the third post war year, improvements in sanitation, equipment and processing were made, and at an accelerated rate by the producers, distributors and health department personnel. During the year, forty-four local and county milk programs were appraised, reviewed and planned.

Seven complete milk sanitation compliance rating surveys were made, covering communities' milk supplies, with the cooperation of the local milk sanitarian. Panama City rated above 90% in milk sanitation compliance; the Honor Roll Class. High ratings were attained by St. Petersburg, Sarasota, Avon Park and Sebring, although they were not quite up to the grade A standard on compliance, 90%. Cooperative efforts with local sanitarians brought the eleven milk distributors serving interstate carriers up to the grade A standard compliance, to be "fully approved"; rating over 90%.

The problem of handling shipped-in cream was emphasized when cream was implicated in an outbreak of food poisoning, gastroenteritis,

involving over twenty persons. Assistance was given to the medical epidemiologist in investigating this outbreak. The shipped-in cream concerned had an excessively high standard plate count and coliform count and had been bottled by the distributor from the bulk shipped-in can without further processing. This was a violation of good dairy practices, as well as public health regulations. The matter was promptly corrected when the dangers of this practice were brought to the attention of the distributor. The need of proper handling of shipped-in products was circularized to the larger health departments after this outbreak occurred. This illustrates the need for constant vigilance over the milk supply.

In cooperation with local sanitarians, nearly three hundred inspections and visits were made to plant producers' farms, producer-distributors, and pasteurization plants, in carrying out the state level program of consulting and advisory service to city and county health units, in matters concerned with the adoption, enforcement and interpretation of the local milk ordinances.

The second printing of the booklet on "Dairy Building Plans" was made and was well received throughout the state by the health departments, the dairy industry and the builders.

The Milk Sanitation Consultant assisted in the writing of a leaflet on "Brucellosis—Undulant Fever".

The Florida Milk Commission activities were carried on for only six months of 1948. This assignment was transferred to another bureau in June, 1948.

Some of the technical services made by the Milk Sanitation Consultant to the dairy industry included:

| | |
|---|-----|
| Thermometers checked and adjusted..... | 13 |
| Alkaline soaker solution analyzed | 4 |
| Milk Samples collected for analyses | 151 |
| Strip cup examinations made | 120 |
| Direct microscopic examinations | 14 |
| Abnormal milk found | 5 |
| Dairy plans reviewed | 2 |

Arrangements were made with the U. S. Bureau of Animal Industry to receive their monthly reports on tuberculosis and Bang's testings, which the department now receives and promptly forward to the health departments concerned for their information and follow-up.

A technical memorandum on "Mastitis Control" was written and was well received throughout the state. This stimulated interest in proper milking methods and herd management.

The increased milk sanitation activities are confirmed by the increased number of samples of milk and milk products collected by the local and county sanitarians for laboratory examinations. Copies of examination reports were received during the year from seven state laboratories and the results recorded in the office ledgers. Over seven thousand milk and milk product samples were collected for laboratory examinations. These

reports were examined for compliance and any other information that they might reveal. The reports revealed that one distributor had been selling reconstructed milk in violation of the Florida Milk and Milk Products Law.

The quality of milk distributed in the state showed a slight improvement over 1947; much room still exists for improvement. Of the seven thousand milk samples analyzed, over 3,000 were pasteurized milk; 3,000 plant-producer samples and over 600 producer-distributor samples. Over 70% of the pasteurized milk samples were within their bacteriological grade; i. e. not over 30,000 standard plate count. This is a slight improvement over 1947 when 67% of the samples were satisfactory bacteriologically. 69% of the plant-producer samples were within their grade bacteriologically; i. e. not over 200,000 standard plate count. In 1947 this figure was 64%. Of the raw producer-distributor samples 60% were within their grade bacteriologically; i. e. not over 50,000 standard plate count. Only 600 retail raw samples were collected in 1948, compared to over 1,000 in 1947. This represents the definite trend toward consumer preference for grade A pasteurized milk samples showed unsatisfactory pasteurization. This is 2.16% of the samples examined.

This Bureau had a part in instigating in the laboratories coliform plate counts on the pasteurized milk. The work was started late in 1948. The results from over seven hundred samples collected indicated that only about one-half of the pasteurized milk is meeting the more stringent 1948 standards for grade A pasteurized milk; less than 30,000 standard plate count and less than 10 coliform count and satisfactory phosphatase tests. The other half of the pasteurized milk samples violate these standards mainly in high coliform count and standard plate count. This indicates there is frequent contamination after pasteurization and that increased attention should be devoted to the handling of pasteurized products and particularly from the pasteurizer to the bottle filler. A few samples showed unsatisfactory pasteurization by the phosphatase test.

Only one Milk Sanitation Consultant carried on the state level program. Many activities were not adequately covered. A minimum state level program to provide the advisory and consulting service necessary to the sixty city and county health units would require a state level staff of five consultants. The developments in dairy science and technology, the growth of the dairy industry in Florida, and the status of milk sanitation point to the need for an effective state level program to serve the industry, the State Board of Health, and the community.

In addition to carrying on the above program in 1949, several projects are planned. These include:

- A memorandum on the construction, operation and maintenance of High-Temperature-Short-Time Pasteurizers.
- A report on the further study of coliform count in grade A pasteurized milk and its significance.
- A technical memorandum on suggested platform tests and laboratory tests for the small and medium sized milk plants.
- A milk plant operator's hand-book.

TABLE XXXIII

SANITARY MILK CONTROL — SUMMARY OF ACTIVITIES

| | |
|---|-----|
| Local and county milk programs reviewed, appraised and planned..... | 44 |
| Communities' milk sanitation compliance rating surveys..... | 7 |
| Communities attaining satisfactory sanitation compliance rating of 90%— | |
| Panama City, Florida..... | 1 |
| Sources fully approved for use on interstate carriers (above 90%)..... | 11 |
| Inspections and visits: | |
| Pasteurization plants | 86 |
| Producer-distributors | 19 |
| Plant producers | 188 |
| Total inspections and visits made..... | 293 |
| Food handling establishments | 2 |
| Technical services: | |
| Thermometers checked and adjusted | 13 |
| Alkalie soaker solution analyzed | 4 |
| Milk cooling efficiencies checked | 21 |
| Sediment testings made | 11 |
| Milk samples collected for analyses | 151 |
| Strip cup examinations made | 120 |
| Direct microscopic examinations made | 14 |
| Abnormal milk found | 5 |
| Dairy plans reviewed | 2 |
| Assistance in rating local meet and abattoirs | 1 |
| Assistance in investigating food poisoning outbreak | 2 |
| Talks given: Training Course—Sanitary Officers—Gainesville—Atten: 57..... | 2 |
| Florida Milk Commission meetings—(6 months only)..... | 11 |
| Conferences on Laboratory procedures | 3 |
| Conferences on milk program with sanitary officers | 8 |
| Conferences with U. S. Bureau of Animal Industry Officials | 3 |
| Conferences with U. S. Public Health Service Officials | 1 |
| Dairy Industry (group meetings) | 1 |
| Florida Dairy Industry Association Meetings | 1 |
| Florida Public Health Association Meetings | 1 |
| Florida Milk Sanitarians' Meeting | 1 |
| U. S. Federal Court—attendance on dairy case | 1 |
| Technical memorandum on "Mastitis Control" | 1 |
| Staff Meetings | 3 |

TABLE XXXIV

SANITARY MILK CONTROL — LABORATORY EXAMINATIONS REPORTED

| Description | Number | Percentage |
|--|--------|------------|
| Total milk samples analyzed..... | 7,162 | |
| Pasteurized milk samples..... | 3,557 | |
| Samples satisfactory standard plate count..... | 2,380 | 71.32 |
| Unsatisfactory phosphatase tests..... | 72 | 2.16 |
| Plant producer milk samples..... | 3,214 | |
| Samples satisfactory standard plate count..... | 2,242 | 69.76 |
| Producer-distributor milk samples..... | 611 | |
| Samples satisfactory standard plate count..... | 369 | 60.39 |

TABLE XXXV
SANITARY MILK CONTROL
COLIFORM COUNT STUDY — LAST QUARTER OF 1948

| Description | Number | Percentage |
|--|--------|------------|
| Grade A pasteurized milk samples analyzed..... | 733 | |
| Number complying with grade A standard of not over 30,000 standard plate count, and not over 10 coliform count and satisfactory phosphatase tests..... | 391 | 53.5 |
| Number having unsatisfactory standard plate count, over 30,000 | 131 | 17.8 |
| Number having unsatisfactory coliform count over 10 | 104 | 14.2 |
| Number having both unsatisfactory standard plate count and unsatisfactory coliform count | 83 | 11.5 |
| Number having unsatisfactory pasteurization phosphatase tests | 24 | 3.2 |

SEAFOOD SANITATION

(Shellfish and Crustacea)

OYSTERS

The oyster industry finds itself in a critical economic condition over the entire state during this third post-war year of 1948. Two evident factors have contributed to the now scant supply and lack of production; namely nature and man.

Record flood rains and freshets of the past two years have taken a heavy toll throughout the state of our native *Ostrea virginica*. The September hurricane of 1947 damaged the beds at Apalachicola. Lack of thorough scientific oyster conservation by man himself cannot be ignored. These factors have slowed the state production to an estimated one half.

The above conditions have had a decided retarding effect on improvements in construction, equipment and sanitary operation. Producers not making money and plagued by hardships are not amicable to spending for sanitary improvements. Considering the shortage of funds and personnel needed to effect more adequate sanitary supervision of the industry, this one-man division is managing to hold the gains made, but without help cannot vouch for the future.

CRUSTACEA

Fresh packed crabmeat, a luxury item at \$2.50 per pound during the war, has, during 1948, flooded the New York and Baltimore markets at a price as low as 50c per pound. The 1947 situation of too many producing plants continued through this year. Sanitary standards in construction, equipment, and operation have been maintained and compare favorably with other producing states.

SCALLOPS

The succulent prized bay scallops moved into the shallow areas around St. Petersburg and Bradenton this year. The local population of Palmetto had a month's scallop spree. A hundred or more local citizens, in varied attire, and with tubs, buckets and burlap sacks, waded the waters off Sneed's Island most every evening of the short season, feverishly gathering the scarce and high priced shellfish; thereby saving themselves \$1.80 per quart.

Since scallops were found only in this area, commercial production was negligible due to the local citizens' competition. As with Florida oysters, here again, one is forced to realize that a once large production of a prized seafood is practically extinct due to the lack of conservation and research.

CLAMS

This year the Thousand Island section of the lower west coast saw the end of production by the Doxie Clam Company. For several years this company produced around 70,000 bushels of clams annually. These clams were processed into canned clam chowder and juices for the market. Depletion of the beds is attributed to the clam's traditional enemy, the conch, together with no conservation, and lack of research.

Only two small raw clam shucking plants are now operating. One at Englewood, and the other at St. Augustine. Both are well equipped and maintain sanitary standards.

TABLE XXXVI
SUMMARY OF ACTIVITIES — SEAFOOD PLANTS

| Description | Operating Certificates Issued | State Inspections Made | New Plants Constructed |
|------------------------------|-------------------------------------|------------------------------|------------------------------|
| Oyster shucking and packing | 61 | 424 | 1 |
| Oyster shellstock only | 3 | 15 | 1 |
| Scallop shucking and packing | 3 | 9 | 0 |
| Clam shucking and packing | 2 | 10 | 0 |
| Crabmeat picking and packing | 40 | 194 | 1 |
| Lobster picking and packing | 1 | 2 | 0 |

TABLE XXXVII
SEAFOOD SANITATION — ADDITIONAL ACTIVITIES — 1948

| | |
|---|-------|
| Oyster growing area pollution surveys | 4 |
| Oyster growing area water samples analyzed | 1,432 |
| Oyster meats specimens cultured and analyzed | 53 |
| Oyster bootleg activities investigated | 2 |
| Half-shell bar inspection and consultation | 47 |
| Lectures—Seafood Sanitation (Sanitary Officers' Short-Courses U. of Fla.— Gainesville) | 3 |
| Lecture — South-Eastern Food & Drug Assoc.—Oyster Sanitation | 1 |
| Out-of-State meeting of South-Eastern Branch A.P.H.A. | 1 |
| Meeting — Florida P.H.A. | 1 |
| Meetings — Apalachicola Shellfish Dealers | 5 |

PROJECTS DEVELOPED AND ACTIVITIES
PERFORMED BY THE BUREAU DRAFTING ROOM—1948

- Preparation of maps, charts, graphs, etc. to illustrate the following pollution surveys and reports:
 - Apalachicola, Flint and Chattahoochee Rivers, and Apalachicola Bay.
 - Manatee River
 - St. Johns River (vicinity of Palatka)
 - Crescent Lake
 - Homosassa area (waters in vicinity of)
 - Lake Tsala Apopka
 - Rice Creek (follow-up)
 - St. Augustine (preliminary)
 - Waters vicinity of St. Petersburg (preliminary report)
 - Live Oak area and Orange County (subsurface pollution surveys and reports.)
- Sight Pollution Map of Florida, showing streams and waters polluted by industrial and domestic wastes.
- Detail drawings for engineers' field kits.
 - Alkalinity, chloride and soap hardness kit.
 - Dissolved oxygen kit.
- Detail drawings for water sample shipping cases—18 bottle and 6 bottle type.
- Plans and specifications for State Board of Health Central Florida Branch Laboratory and Headquarters Buildings, Orlando, Florida.
- Preparation of numerous maps, schematic drawings and illustrations for reports on features at schools, swimming pools, water impoundments, water and sewage treatment plants, towns, and subdivisions.
- Routine recording and filing of plans reviewed and/or approved by the bureau, preparation of stencils and reproduction or original drawings of maps, graphs, charts, etc. on the ozalid printing machine.
- Illustrations for several issues of "Health Notes" and complete illustrations for U. S. P. H. S. Maternal and Child Health Florida booklet.
- Display standards for Mobile T. B. X-Ray units.

DIVISION OF ENTOMOLOGY

JOHN A. MULRENNAN, Director

Considerable progress was made during the year in the control of insect-borne diseases in the State.

The disease, malaria, continued to decline as was evident on the basis of reported cases, although there was a slight increase in reported deaths over 1947. Seven deaths were reported in 1947 and 11 deaths were reported in 1948 from malaria. Eight deaths were reported from typhus in 1948, whereas only 7 were reported in 1947.

The number of reported cases of typhus fever showed a marked decline in 1948 as only 166 cases were reported as compared to 344 reported cases in 1947.

The U. S. Public Health Service contributed \$187,253.00 during the year for malaria control and \$62,438.00 for typhus control activities in the State. In addition to the federal contribution, the State, counties and municipalities made available \$176,822.00 for malaria control and \$75,098.78 for typhus control.

STRUCTURAL PEST CONTROL

Since the passing of the Florida Structural Pest Control Act of 1947, the State Board of Health has realized an increasingly cooperative relationship with the structural pest control industry in Florida. There is every reason to expect that this relationship will continue.

RULES AND REGULATIONS

Work was begun and progress has been made on the rules and regulations which are to be a part of the Florida Structural Pest Control Law. These minimum standards of work, covering all phases of structural pest control, have been reviewed and criticized by authorities in all sections of the country, and a rough draft is now in the hands of competent members of the structural pest control industry of this State for review. Their adoption is expected during the early part of 1949.

INVESTIGATIONS

Seventy-nine investigations were made of complaints of home owners and of reports of illegal operations by various pest control firms, all of which were satisfactorily concluded after the facts in each case were made known. All violations were corrected without legal action.

One certified pest control operator was cited before the Florida Structural Pest Control Board for failure to register his firm with the State Board of Health, and for other incriminating activities. The Board revoked this individual's certificate, making it impossible for him to legally operate a pest control business in Florida.

REGISTRATIONS

Registration of structural pest control firms continued throughout the calendar year.

| | |
|--|------------|
| 144 licenses issued in 1947-48 @ \$25.00 each..... | \$3,600.00 |
| 456 identification cards issued in 1947-48 @ \$1.00 each..... | 456.00 |
| Total revenue for the 1947-48 fiscal period | \$4,056.00 |
| 142 licenses issued in 1948-49 @ \$25.00 each | \$3,550.00 |
| 517 identification cards issued in 1948-49 @ \$1.00 each | 517.00 |
| Total revenue for 1948-49 (through 12-31-48) | \$4,067.00 |

Personal visits were made to all localities in the State so that a majority of the firms were contacted at least once.

Bulletins pertaining to matters of common interest were drafted and issued to all licensed pest control firms from time to time. One such bulletin, in particular, established tentative regulations governing the use of sodium fluoroacetate (Compound 1080) as a rodenticide.

RESIDUAL DDT HOUSE SPRAYING SUMMARY OF 1948 SPRAY OPERATIONS

Residual spray programs were carried on in thirty counties as an activity of the local health departments during the 1948 season. As outlined in Table XXXVIII, 69,881 houses were treated, using 83,857 lbs. of DDT. Approximately 1.3 man-hours and 1.18 lbs. of DDT were required for each treated house. The cost to the participating counties amounted to \$0.78 per house.

An outbreak of malaria in Naples, Collier County, required the treatment of 130 houses in that community after scheduled spraying operations were discontinued.

A program of spraying out-buildings with a 5% DDT emulsion was begun by the Jefferson County Health Department. The purpose of this work was to control the insect vectors of equine encephalomyelitis. A summary of the work as of December 31, 1948 is shown in Table XXXIX.

EVALUATION OF DDT HOUSE SPRAYING

Entomological inspections were made in unscreened and poorly screened houses to determine the effectiveness of the spray applications in keeping houses free of malaria vectors. These inspections revealed that a high degree of protection was being obtained. Of 678 inspections in sprayed houses, *Anopheles quadrimaculatus* were present in only 3.83% as compared with 27.4% in unsprayed houses. However, the control of house flies was not as satisfactory. Inspections revealed an unusually large population of flies in certain counties west of Tallahassee, and complaints, from this area, indicated an unsatisfactory control by DDT residues. Also, recent evidence indicates that house flies may develop some degree of resistance to DDT. Tests were conducted whereby adult flies were con-

fined, by means of cages, to sprayed surfaces for one to four hours. Results of these tests showed a 65.9% mortality of the test flies. Observations indicate the need of a sound program of environmental sanitation supplemented by the proper use of insecticides to obtain a satisfactory control of flies.

TYPHUS AND RODENT CONTROL

SUMMARY OF TYPHUS CONTROL ACTIVITIES

Typhus and Rodent Control programs were carried on in five counties during the calendar year 1948. Projects were in operation in Dade, Escambia, Hillsborough, Pinellas, and in the City of Jacksonville in Duval County. All projects functioned as an activity of the health department concerned.

TABLE XXXVIII
HOUSES RECEIVING RESIDUAL SPRAY, 1948 WITH COST OF LABOR AND DDT PER HOUSE, BY COUNTIES

| County | Total Houses Sprayed | Total Cost (Labor) | Average Man-Hours per House | Average Number Lbs. DDT per House | Average Cost to County Per House | County Man-Hours per House |
|------------|----------------------|--------------------|-----------------------------|-----------------------------------|----------------------------------|----------------------------|
| Baker | 300 | 94.00 | .893 | .93 | .313 | .893 |
| Calhoun | 1,761 | 1,437.00 | 1.373 | 1.275 | .816 | 1.272 |
| Citrus | 1,655 | 1,189.20 | 1.235 | .728 | .718 | .993 |
| Clay | 2,283 | 2,019.50 | 1.258 | 1.200 | .884 | 1.047 |
| Collier | 130 | — | .738 | .776 | — | — |
| Dixie | 1,317 | 1,806.00 | 2.119 | .722 | 1.371 | 1.828 |
| Escambia | 2,501 | 1,615.00 | 1.143 | 1.356 | .645 | .874 |
| Franklin | 338 | 285.00 | 1.810 | 1.665 | .843 | 1.110 |
| Gadsden | 5,159 | 4,371.00 | 1.313 | 1.038 | .847 | 1.179 |
| Gilchrist | 835 | 875.20 | 1.935 | 1.227 | 1.048 | 1.609 |
| Gulf | 1,948 | 856.00 | .879 | 1.419 | .439 | .673 |
| Hamilton | 1,997 | 2,130.00 | 1.802 | 1.26 | 1.066 | 1.530 |
| Hernando | 1,742 | 1,174.80 | 1.259 | .966 | .674 | 1.031 |
| Holmes | 3,620 | 3,009.43 | 1.000 | .886 | .831 | .912 |
| Jackson | 6,735 | 4,631.20 | 1.289 | 1.221 | .687 | 1.203 |
| Jefferson | 2,769 | 2,047.40 | 1.245 | 1.081 | .739 | 1.042 |
| Lafayette | 908 | 814.50 | 2.017 | 1.963 | .897 | 1.638 |
| Lake | 3,197 | 1,432.20 | .795 | 1.129 | .447 | .685 |
| Leon | 3,158 | 2,800.00 | 1.476 | 1.004 | .886 | 1.260 |
| Levy | 2,875 | 2,337.10 | 1.278 | .873 | .812 | 1.139 |
| Liberty | 735 | 604.00 | 1.216 | 1.251 | .821 | 1.142 |
| Madison | 3,078 | 3,395.60 | 1.751 | 1.311 | 1.103 | 1.510 |
| Okaloosa | 4,811 | 2,339.00 | 1.175 | 1.790 | .486 | .972 |
| Pasco | 45 | — | .355 | 1.622 | — | — |
| Santa Rosa | 483 | 164.00 | 1.159 | 1.480 | .339 | .679 |
| Sumter | 2,593 | 1,837.00 | 1.172 | .974 | .708 | .987 |
| Suwannee | 3,555 | 4,398.00 | 1.559 | .943 | 1.237 | 1.428 |
| Taylor | 2,761 | 1,911.80 | 1.167 | 1.307 | .692 | .967 |
| Wakulla | 1,632 | 1,298.50 | 1.320 | 1.155 | .795 | 1.085 |
| Walton | 3,023 | 1,650.00 | 1.103 | 1.235 | .545 | .878 |
| Washington | 1,937 | 1,937.00 | 1.526 | 1.614 | 1.000 | 1.329 |

Totals 69,881 54,459.43 1.303 1.186 .779 1.118
*This includes the man-hours contributed by the local Governments and those contributed by CDC.

TABLE XXXIX
Encephalomyelitis Control Activities
October 25 — December 31, 1948

| County | No. Premises Visited | Out-buildings treated | | | Lbs. DDT Used | Man-Hours | |
|-----------|----------------------|-----------------------|-------|----------------|---------------|-----------|-------|
| | | Barns | Sheds | Chicken Houses | | CDC | Local |
| Jefferson | 306 | 493 | 737 | 635 | 508 | 0 | 486 |

Applications of DDT dust were reduced to two complete coverages of the designated areas and control of the rat ectoparasites was obtained. The reduction in the number of applications of DDT dust enabled the projects to expand the dusted areas so that a greater number of premises were dusted than in the previous year of 1947.

DDT DUSTING: There were 41,173 premise dustings completed in the five operating projects. The amount of 10% DDT dust used in this work was 145,083 pounds, making an over-all average of 3.52 pounds per premise dusted.

LABOR EXPENDED: The total man-hours paid for in all phases of the programs amounted to 88,064. Local contributions amounted to 61,965 man-hours; State and Federal, 26,099 man-hours. A further breakdown of these totals shows that 15,822 man-hours were expended on dusting activities for an average of 23 minutes per premise dusted. Ratproofing used 28,001 man-hours, poisoning 13,449, and evaluation trapping 12,871. Man-hours contributed by local sources amounted to 70.3% of the total.

RAT POISONING ACTIVITIES: Rat poisoning was done on all projects. Extensive poisoning work was carried on by Dade, Duval and Hillsborough Counties. Principal poisons used were Red Squill, Barium Carbonate and Zinc Phosphide in the form of poisoned baits. A total of 15,081 pounds of bait were placed in 20,156 establishments. In addition, 4,191 pints of "1080" water were set out in 2,914 establishments, and 100 pounds of "1080" poison bait were used in 80 others.

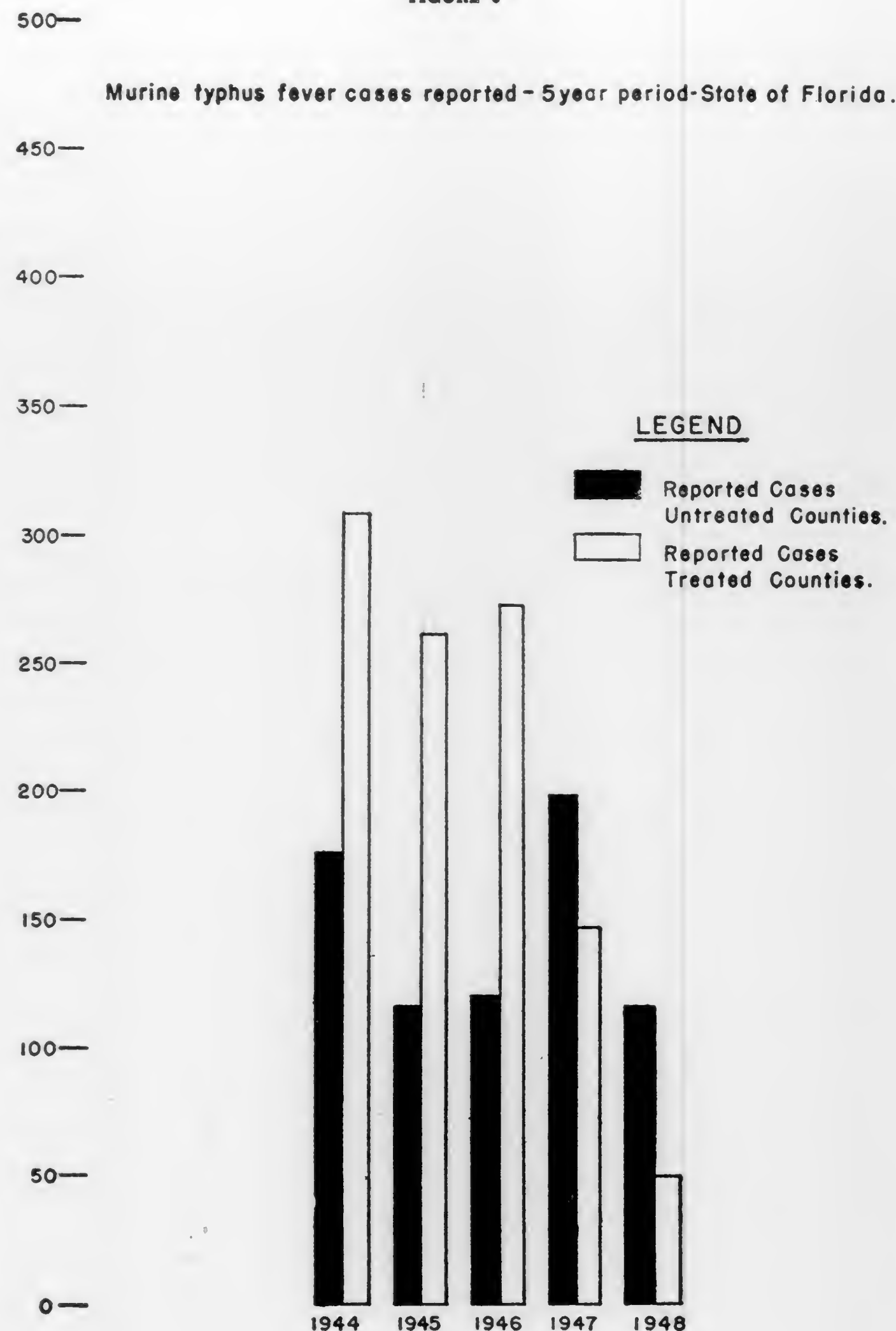
RAT PROOFING: Ratproofing activities were carried on in five cities with a total of 397 places ratproofed. In addition, 99 establishments, formerly rat-proof, were inspected and repaired.

EVALUATION: Evaluation trapping to determine the degree of ectoparasite control was done on all projects. In connection with this work, 4,082 rats were trapped, 3,614 alive and 468 dead. Blood samples were taken from 3,205 rats and examined by means of complement fixation tests.

There were 1929 blood specimens taken from dusted areas and 5% were positive; from undusted areas, 17.1% were positive out of 1,276 specimens submitted.

EDUCATION AND PROMOTION: Educational work was conducted through newspaper articles, lectures, motion pictures, radios and by dissemination of pamphlets and literature. A representative of the typhus control unit conducted classes and field demonstrations on typhus and rodent control during the Short Course for Sanitarians which is conducted every three month period at Gainesville, Florida, by the Alachua County Health Department, the Commonwealth Fund, the University of Florida and the State Board of Health.

FIGURE 6



ANOPHELES ALBIMANUS IN FLORIDA

Anopheles albimanus has been recognized as the most important malaria vector of the Caribbean region for a good many years. This species was found at Key West in 1904. Entomological surveillance, begun in 1946, was continued during this period to determine the density, distribution and biology of this species in the Florida Keys and on the extreme southern tip of the mainland. Apparently the only well established breeding area is confined to Big Pine Key, which is, by highway, eighty miles south of the Florida mainland. No indication was found that an increase in malaria could be attributed to this species. However, nearly 1,000 larvae and 20 adults were furnished the Malaria Investigation Laboratory, to establish a colony of *A. albimanus* for malaria transmission studies.

LABORATORY ACTIVITIES

During the year, 1,619,314 adult mosquitoes collected in light traps, and 7,050 collected either while biting or in natural resting places, were identified and reported. Also, 10,313 larvae were identified. In addition, 25,235 rat ectoparasites and several hundred ticks, household pests, and other arthropods of medical importance were identified.

WATER IMPOUNDMENTS AND MOSQUITO CONTROL

A decrease in the construction of water impoundments for the year was noted, in that 12 permits for this purpose were issued during 1948 against 19 for the previous year. Most of these projects were constructed in Northwest Florida for irrigation or for recreational purposes.

TABLE XL
PRINCIPAL ACTIVITIES—TYPHUS AND RODENT CONTROL BY PROJECT
1948

| COUNTY | No. Estab-lish-ments rat-proofed | Total No. Premise Dust-ings | Total Lbs. DDT Used | Average Lbs. DDT per Premise | "1080" | | Poisoned Baits All Kinds | |
|--|----------------------------------|-----------------------------|---------------------|------------------------------|-----------|------------|--------------------------|-------------|
| | | | | | No. Prem. | Pints Used | No. Prem. | Pounds Used |
| Dade (Miami) | 73 | 9,772 | 27,546 | 2.82 | 1,161 | 1,536 | 7,978 | 10,477 |
| Duval (Jacksonville) | 185 | 5,141 | 12,742 | 2.48 | 1,401 | 2,048 | 12,073 | 3,981 |
| Escambia (Pensacola) | 48 | 13,257 | 48,700 | 3.67 | 19 | 24 | 14 | 18 |
| Hillsborough (Tampa) | 79 | 8,979 | 39,172 | 4.36 | 326 | 576 | 171 | 705 |
| Pinellas (Dunedin, Largo, Pass-a-Grille) | — | 4,024 | 16,923 | 4.20 | — | — | — | — |
| Polk (Bartow) | 12 | — | — | — | 7 | 7 | — | — |
| TOTALS | 397 | 41,173 | 145,083 | 3.52 | 2,914 | 4,191 | 20,236 | 15,181 |

Forty-nine inspections were made of water impoundments which had been constructed in past years to determine if they were being maintained in accordance with the Florida State Sanitary Code.

TABLE XLI
RATS TRAPPED ON CDC TYPHUS CONTROL PROGRAM—
January 1, 1948 to December 31, 1948

| COUNTY | RATS TRAPPED | | | BLOOD DETERMINATIONS | | | | Per-Cent Pos. | Per-Cent Neg. |
|--------------|--------------|-------|------|----------------------|----------|----------|-------|---------------|---------------|
| | No. | Live | Dead | No. Sera Sent In | No. Pos. | No. Neg. | | | |
| DADE | | | | | | | | | |
| Dusted Area | 451 | 353 | 98 | 153 | 22 | 117 | 15.83 | 84.17 | |
| Control Area | 120 | 110 | 10 | 68 | 4 | 55 | 6.78 | 93.22 | |
| DUVAL | | | | | | | | | |
| Dusted Area | 423 | 356 | 67 | 330 | 7 | 319 | 2.15 | 97.85 | |
| Control Area | 193 | 179 | 14 | 170 | 53 | 116 | 31.36 | 68.64 | |
| ESCAMBIA | | | | | | | | | |
| Dusted Area | 575 | 524 | 51 | 486 | 25 | 452 | 5.25 | 94.75 | |
| Control Area | 285 | 266 | 19 | 251 | 26 | 224 | 10.40 | 89.60 | |
| HILLSBOROUGH | | | | | | | | | |
| Dusted Area | 309 | 280 | 29 | 275 | 6 | 255 | 2.30 | 97.70 | |
| Control Area | 197 | 191 | 6 | 189 | 26 | 142 | 15.48 | 84.52 | |
| PINELLAS | | | | | | | | | |
| Dusted Area | 656 | 574 | 82 | 570 | 11 | 494 | 2.18 | 97.82 | |
| Control Area | 410 | 376 | 34 | 371 | 31 | 309 | 9.12 | 90.88 | |
| GADSDEN | | | | | | | | | |
| Dusted Area | — | — | — | — | — | — | — | — | — |
| Control Area | 60 | 41 | 19 | 39 | 13 | 23 | 36.12 | 63.88 | |
| JACKSON | | | | | | | | | |
| Dusted Area | — | — | — | — | — | — | — | — | — |
| Control Area | 52 | 42 | 10 | 34 | 16 | 13 | 55.17 | 44.83 | |
| ST. JOHNS | | | | | | | | | |
| Dusted Area | 146 | 133 | 13 | 115 | 30 | 82 | 26.79 | 73.21 | |
| Control Area | 205 | 189 | 16 | 154 | 36 | 115 | 23.85 | 76.15 | |
| TOTALS | | | | | | | | | |
| Dusted Area | 2,560 | 2,220 | 340 | 1,929 | 101 | 1,719 | 5.00 | 95.00 | |
| Control Area | 1,522 | 1,394 | 128 | 1,276 | 205 | 997 | 17.06 | 82.94 | |

MOSQUITO CONTROL INVESTIGATIONS

The newly-established station for mosquito control research and evaluation at Orlando completed its first year of operation still in the exploratory field expected from its first few months. The objectives outlined in last year's report were pursued as closely as possible. Methods of mosquito control evaluation were particularly investigated. Areas not within control districts were surveyed in anticipation of future control programs. The biology of the most important pest mosquito of Florida was studied intensively. Within time and personnel limits, contact was maintained with most agencies involved in control work in Florida. Co-operation was the key-note of the first year of operation.

Listed below are the activities undertaken and accomplished:

1. A cooperative project was set up with the Florida Engineering and Industrial Experiment Station at the University of Florida for the development of a mosquito-sampler better adapted to the needs and conditions of Florida than the presently used New Jersey light-trap.

2. In Leesburg, under a cooperative arrangement with the city officials, a program of city-wide mosquito control was carried on. This project was essentially an attempt to evaluate: (1) a space-spraying program where the prevailing mosquitoes are *Mansonia*, and (2) the efficiency of a modern and widely used ground fog-machine.

3. A cooperative investigation of sandfly biology and control was entered into with the Bureau of Entomology and Plant Quarantine (U. S. Department of Agriculture) and the mosquito control districts of Dade, Broward, and Palm Beach counties.

4. A biological investigation of *Aedes taeniorhynchus*, the common salt-marsh mosquito, was begun on Sanibel Island in Lee County. This is to be a continuing study of the little known but important factors in the production and dispersal of this mosquito.

5. With the cooperation of the Brevard County Mosquito Control District, an investigation of mosquito production and control was made in the Cocoa area. The object in this work was to compare various methods of gauging population changes following aerial control operations and to determine the limitation imposed on each method by weather, time consumption, and other factors.

6. A study similar to the above was made in Broward County with the cooperation of the Broward County Anti-Mosquito District.

7. In Punta Gorda, the local mosquito situation was surveyed and experimental power spraying was done with the cooperation of the city officials.

8. Special year-long light-trap surveys were made in Manatee County and in the cities of Ft. Myers and Lake Wales, all of which areas were contemplating the establishment of control programs. In all these, the cooperation of local officials was welcomed and utilized.

9. Help was given the City of Naples in organizing a mosquito control program. An incipient malaria outbreak was met immediately with a residual spraying program.

10. A very large number of light-traps were operated in a general survey of the uncontrolled coastal counties from Hillsborough to Monroe. This survey has produced not only an extended acquaintance with that coast-line and a good picture of mosquito distribution and densities, but also has revealed foci of extraordinary abundance of certain mosquito species which could serve as excellent study and experimental areas for the species concerned, should such ever be indicated.

11. Liaison was maintained with personnel and projects of various governmental and civic organizations, to mention a few, the Bureau of Entomology and Plant Quarantine (U. S. Department of Agriculture), the U. S. Fish and Wildlife Service, and the University of Florida.

12. Assistance was given to Manatee County officials in helping to promote a mosquito control district which was voted in during the November general election. Only one small precinct in the entire county voted against the formation of a district.

Wherever the word "cooperation" has been used, it meant not just mutual understanding and best-wishing, but actual getting together of the cooperators in financing and actually doing the work.

COMPLETED STUDIES AND PAPERS

PUBLISHED

1. A Far South Record of *Anopheles quadrimaculatus* Say in Florida. Mosquito News, March, 1948. D. C. Thurman, Jr.
2. Records of *Anopheles quadrimaculatus* Say For the Florida Keys. Mosquito News, June, 1948. Ernestine H. Basham and James S. Haeger.
3. Species of Ticks Associated with Rocky Mountain Spotted Fever Cases in Florida. Journal of Economic Entomology, October, 1948. Doyle J. Taylor, J. A. Mulrennan and D. C. Thurman, Jr.
4. *Culex (Melanconion) mulrennai*, A New Species From Florida. Annals of the Entomological Society of America, March, 1948. Ernestine H. Basham.
5. Key To Florida *Triatoma* With Additional Distribution Records For the Species. The Florida Entomologist, Sept., 1948. D. C. Thurman, Jr., J. A. Mulrennan, Ernestine Basham and Doyle J. Taylor.
6. Description of the Male of *Androlaelaps setosus* Fox. The Journal of Parasitology, April, 1948. D. C. Thurman, Jr., Nina Branch & John A. Mulrennan.
7. United States Records of *Typhlodromus mariposus* (Fox) from Rats in Florida. Journal of Economic Entomology. D. C. Thurman, Jr., and Nina Branch.

BUREAU OF MATERNAL AND CHILD HEALTH

FRANCES E. M. READ, M.D., Director

The present director of this bureau assumed her duties here as of October 1st and has placed special emphasis on the establishment of a program for the care of the premature infant.

During 1948 MCH funds were available for hospital and public health services to both the mothers and children in the area to be served by the Western Palm Beach County Public Hospital, known as the Belle Glade Hospital. This hospital was governed by a Board of Directors who were supposed to be fairly representative of the community. This program was established to provide services for the migrant labor group of the population. The objective of this service was to provide insofar as possible complete services to any mother and child in the State of Florida, but more especially to this group of migrant workers in the Western Palm Beach County area. We were very fortunate in obtaining such highly qualified personnel for this program. This personnel included a full-time obstetrician, a part-time pediatrician, an obstetrical nurse supervisor and two general duty nurses. During the year 354 maternity cases and 138 pediatric cases received complete care in this hospital.

The director outlined the pediatric care of the premature at six conferences of local health officers and nurses, located at strategic positions throughout the state. During these conferences, she stressed the great need for trained personnel to supervise the work in the care of the premature. She suggested the attempt to offer consultation services to the local hospitals through a public health nurse who had received at least one year of special training in general pediatric nursing and in the care of the premature. The State Board of Health has distributed incubators throughout the various counties and has ordered heated carriers to transport prematures from the home to the central general hospital.

The special school health services program was carried out with the State Department of Education and began in February when 16 recent medical graduates came into the state and worked in 25 county health units to do physical examinations and immunizations. Children with defects were referred to the family physicians and in cases where such service was not available, local resources were used. Thousands of school children were examined who might otherwise not have had this service due to the lack of personnel in the local health departments.

The director worked with the consultant on education of "exceptional children" on the standards for the exceptional child. She outlined the pediatric standards for this monograph and placed a great deal of stress on the argument against the traditional compartmentalizing of remedial

work. She felt that it was only by considering the fundamentals of the disability and adjusting those to the psychosocial environment that the optimum conditions could be worked out. The State Board of Health, through its existing facilities in the six mental health clinics which have already been established, has been able to afford a diagnosis of those children who would fall into the exceptional child class. Under the existing facilities, if 10 exceptional children are available in one locality, a special class may be established in that school by the State Department of Education.

Audiometers for testing the hearing of children were purchased by this bureau and distributed to various local county health departments. A demonstration of the technique to be used in testing the hearing of school children was outlined at six local health conferences. At this time it was stressed that these examinations should be made by a trained technician. In the three counties where a generalized hearing program has been carried out, arrangements have been made with the local nose and throat specialists who have contributed their specialized services in the correction of these defects. Local organizations, namely the Pilot Clubs, have purchased radon and the hearing aid apparatus. In the remaining counties, there is need for developing a similar program.

Massachusetts vision testing materials were provided by this bureau for each of the county health departments. A demonstration of the proper method for testing school children was made in six different localities. During this demonstration, it was pointed out that this was a very time consuming method and the relative value of this form of testing as compared with the routine Snellen testing was questioned. The director has worked closely with the Florida Council for the Blind and is pleased to report that 14 sight saving classes have been developed throughout the state during the past year. The Florida Council for the Blind provides special books and large type posters and the Lions Club provides the special lighting, special blackboards and special desks. In two of our local health departments where there are large rural areas, the public health nurses have worked with the Florida Council for the Blind and arrangements for the eye examinations were made through the cooperation of these two organizations. In only one county health department have attempts been made to cope with the problem of the preschool blind child and the preschool hard of hearing child.

Scholarships to the postgraduate Pediatric Seminar in Saluda, N. C., were provided for one local health officer and one local MCH director. Scholarships to attend the postgraduate Obstetric Seminar in Augusta, Georgia, were provided for six local health officers and clinicians who work in the local health departments. Lecturers for the postgraduate Medical Assembly which is an annual course held in Jacksonville by the Florida Medical Association were furnished with funds from this bureau.

Hospitalization and consultation were provided at the Florida A. & M. College Hospital for abnormal maternity cases in the Leon County area.

The director worked closely with the Florida Children's Commission as pediatric consultant to the planning committee. She outlined the health problems of Florida children to be presented to the Nemours Foundation in order that they might make a study of the all over need in this state prior to making any commitments from the point of view of financial assistance to any one group of children. Dr. Shands, medical director of the Alfred I. duPont Institute, of Wilmington, Delaware, stated that he wanted the money to be spent where it was most needed; so he consulted the Florida Children's Commission because it was the fact finding and planning agency in the field of child welfare for Florida.

Nutrition services were available in this bureau during the first three months of 1948. During that period of time, services were rendered in cooperation with the child welfare division of the State Welfare Board.

The director worked with the Florida Crippled Children's Commission, the Cerebral Palsy Association, the Florida State Conference of Social Work, the Child Planning Committee of the State Welfare Board and the Florida Council for the Blind. The director has met with the chairman and secretary of the Maternal Welfare Committee of the Florida Medical Association in order to work out plans for a coordinated study sponsored by the Florida Medical Association and the State Board of Health on the causes of our high maternal mortality rate.

A study was made of the ages of our licensed practicing midwives and it was found that of the 472 midwives, 216 were 60 years of age and over. Our state midwife teacher assisted and helped plan in the training of a group of young midwives to replace the older ones, who had started practicing many years ago. This training program was a community wide project worked out with the local health officer in one of our counties. Additional midwife teachers will be employed during the ensuing year in order that we may retire the older midwives and replace them with young trained ones.

MENTAL HEALTH PROGRAM

FRANCES E. M. READ, M.D., Director

The Mental Health Program which was authorized by the United States Public Health Service made it possible for us to develop several clinics in the State of Florida during 1948. The director resigned during March to enter private practice and we have not been able to replace him with the services of a full-time psychiatrist.

Only two mental health clinics were in operation in the State by the end of 1947. During 1948 four mental health clinics were established throughout the state and one study program was undertaken in Volusia County. That study represented an almost complete county-wide survey conducted during a period of three months.

Pinellas County—Since September 1944 a Child Guidance Clinic headed by Dr. Paul W. Penningroth has been in operation but during 1948, Dr. T. Paul Haney, director of the Pinellas County Health Department, integrated this clinic with the mental health services the Pinellas County Health Department had to offer. The additional funds received from the State Board of Health made it possible for the Pinellas County Child Guidance Clinic to (1) reorganize on a county-wide basis, (2) complete a full "team" staff and (3) place increased emphasis on the qualitative standard of performance. The staff of this clinic has been organized in such a way that we have available a complete team consisting of Dr. Bailey, psychiatrist, two psychologists, one psychiatric social worker and one medical social worker. Funds have been provided from the following sources: Mental Health Fund, Juvenile Welfare Board, Community Chests of St. Petersburg and Clearwater, and the George Davis Biven Fund. During the year there have been 294 new and reopened cases. This clinic limits its service to children only.

| AGE RANGE | NUMBER |
|---------------|--------|
| Under 6 | 23 |
| 6, 7 and 8 | 51 |
| 9, 10 and 11 | 72 |
| 12, 13 and 14 | 57 |
| 15 and over | 46 |

The children were referred by a wide variety of individuals and agencies. The largest single number of referrals came on the initiative of the parents themselves. In the experience of this clinic, the parents have more and more come on their own initiative indicating that both the services rendered and the educational program undertaken have steadily helped parents to focus necessary attention on the mental health needs of families and children.

REFERRALS

| | |
|--------------------------|-----|
| Parents | 39% |
| Juvenile Court | 16% |
| Schools | 15% |
| County Health Dept. | 9% |
| Other Agencies | 15% |
| Other Individuals | 6% |

In breaking down the problems into the variety of reasons for referral, we may summarize them in four general categories with the recognition that some of the children seen showed symptoms described in one or more of these descriptive groups.

1. Unacceptable social behavior such as temper outbursts, lying, stealing, destructiveness, sex misbehavior, disobedience.
2. Personality problems, such as shyness, worries, fears, over-activity and daydreaming.
3. School adjustment problems, such as dislike of school, special disabilities and poor school work.
4. Vocational guidance problems especially for youth who are confused about the type of work for which they should prepare.

Throughout the year there were a total of 973 interviews with children and 993 interviews with parents. The number of interviews for any particular child or parent varied with the length and intensity of service rendered from a week or two to over a year. This clinic has been actively represented on the State Committee of Mental Hygiene which is interested in establishing clinics, improving commitment procedures to our mental hospitals and improving treatment and care given to the mentally ill.

Dade County—This was the second clinic in the state in operation by the end of 1947. Dr. T. E. Cato, director of the Dade County Health Department, and the Mental Hygiene Society of Southeastern Florida had succeeded in setting up this clinic and had provided supplementary funds to establish it. The School Commissioners of Dade County supplied the funds to pay the social worker and provided space for the unit. This clinic is staffed by a psychiatrist, a psychologist supplied by the University of Miami and a full-time social worker. The clinic manager acts as secretary and playroom worker. The sources of funds were: Mental Health Funds, Dade County Board of Public Instruction and the Dade County Health Department. During 1948, 140 patients were seen in this clinic with only two adults in the entire group.

SOURCE OF REFERRALS

| | |
|--------------------------------------|-----|
| Dade County Board of Education | 96% |
| Dade County Health Department | 3% |
| Social Agencies | .8% |
| Private Doctors | .2% |

The types of problems presented were:

| | |
|--|----|
| 1. Behavior disorders of children | 53 |
| 2. Mental deficiency | 15 |
| 3. Psychoneuroses | 6 |
| 4. Psychoses | 2 |
| 5. Character disorders | 45 |
| 6. Disturbances associated with organic and infectious diseases | 17 |

This clinic had the services of Dr. Goodman, psychiatrist, for three half-day sessions per week up until December when he resigned. Since that period Doctor Fishbein and Doctor Kells devote their services to this clinic. During 1949 it is hoped that this clinic will be able to expand to the extent that we will be able to service patients referred to us from the Juvenile Court. With that expansion we hope for additional financial assistance from the Juvenile Welfare Board in Dade County.

Leon County—This clinic is under the auspices of Dr. H. A. Sauberli, director of the Leon County Health Department, and Florida State University. This clinic is staffed by a team consisting of a psychiatrist, Dr. Herman Selinsky of Miami, a clinical psychologist and a social worker as well as an executive secretary. Funds were received from the Florida State University and the Mental Health Fund. About 9 students from Florida State University who were seniors in either the Department of Clinical Psychology or in the Department of Social Work were utilized to do a limited amount of psychometry and social case history field work under the supervision of the psychologist, Dr. Sweetland, and Mr. Hicks, the social worker. A total of 207 cases were seen with 105 children and 102 adults.

SOURCE OF REFERRALS

| | |
|--|-----|
| Leon County Health Unit | 30% |
| Public Schools | 15% |
| Self-referral | 5% |
| Family | 5% |
| Physicians, V. A., Judges and Social Agencies | 45% |

The types of problems presented were:

| | |
|--|----|
| 1. Behavior disorders of children | 80 |
| 2. Mental deficiency | 31 |
| 3. Psychoneuroses | 67 |
| 4. Psychoses | 6 |
| 5. Character disorders | 18 |
| 6. Disturbances associated with organic and infectious diseases | 5 |

During a two months period the psychologist spent from three to five days each week in various counties throughout the state doing psychome-

tric work to assist in setting up classes for the exceptional child. Through this clinic it was hoped that the problems of mental health in the community would be taken care of and the students would be trained in clinical psychology and social work to such a level that they will be of use in expanding the mental health program throughout the state. The psychologist has been very active on the mental health committee of the Florida State Conference of Social Work.

Orange County—The clinic was opened in April, 1948, under the direction of Dr. Leland H. Dame, health officer of Orange County. The psychiatrist, Dr. Lowell S. Selling, had resigned as director of the Mental Health Program with the State Board of Health and had taken a very active part in the formation of this clinic. Dr. Selling had addressed the Health Committee of the Council of Social Agencies and the Community Planning Organization as well as the judges of the various courts. Arrangements had already been made for Dr. James H. Russell, professor of psychology at Rollins College, to serve part-time as clinical psychologist for the clinic in Orlando. The Orange County School Board obtained the full-time services of a psychiatric social worker. The sources of funds were: Mental Health Funds, Orange County School Board and Orange County Health Department.

During 1948, 187 patients were seen in this clinic with 167 children and 20 adults.

SOURCE OF REFERRALS

| | |
|---|-----|
| Juvenile Court | 40% |
| County Welfare | 10% |
| Schools | 30% |
| Red Cross | 1% |
| Children's Home Society | 5% |
| County Health Dept. | 9% |
| Parents or other interested individuals | 5% |

The types of problems presented were:

| | |
|--|----|
| 1. Behavior disorders of children | 92 |
| 2. Mental deficiency | 36 |
| 3. Psychoneuroses | 10 |
| 4. Psychoses | 9 |
| 5. Character disorders | 9 |
| 6. Disturbances associated with organic & infectious diseases | 31 |

Polk County—During October, 1948, the Polk County Guidance Center was established under the direction of Dr. Edwin G. Riley, health officer of Polk County. The Polk County Guidance Center had been organized through the initiative of Judge G. Bowdon Hunt of the Polk County Juvenile Court and the clinic occupied space in the Juvenile Court offices. The staff of the Center included Dr. Lowell S. Selling, psychiatrist, a psychologist and a social worker.

This clinic received financial support from the Polk County School Board and the Women's Federated Clubs as well as the Mental Health Funds from the State Board of Health and the contribution made by

the Polk County Juvenile Court. During 1948, 45 patients, all children, were seen in this clinic.

SOURCE OF REFERRALS

| | |
|-------------------------|-----|
| Schools | 40% |
| Juvenile Court | 34% |
| Health Department | 14% |
| Parents | 7% |
| Physicians | 2% |
| State Welfare | 2% |

The types of problems presented were:

| | |
|--|----|
| 1. Behavior disorders of children | 16 |
| 2. Mental deficiency | 7 |
| 3. Psychoneuroses | 9 |
| 6. Disturbances associated with organic & infectious diseases | 13 |

Hillsborough County—The Marriage and Family Council of Hillsborough County was incorporated in June, 1948, after recognition had been given to the need to provide a center for specialized marriage counseling. A director and an executive secretary were employed. Appointments with the psychologist, Dr. Paul W. Penningroth, director of the Pinellas County Child Guidance Clinic, were made in order that he would be able to interview the patients during one day of each week. In the work of this Council, the staff encountered many problems of family situations that involved children. Dr. Frank V. Chappell, director of the Hillsborough County Health Department, had felt that it would be possible to include child guidance services and that it would be the most desirable step to be taken. This type of work in child guidance has been worked out in the Tampa Clinic through the relationships that exist between the parents and the children. In view of that, Dr. Chappell felt that they should maintain the present marriage counseling service and add a second department of child guidance, both under the same kind of professional help. In November, 1948, through the cooperation of the school authorities, space was made available for a child guidance clinic in the Henderson School in Tampa. The financial support for this clinic has been obtained from several local organizations as well as the mental health funds through the State Board of Health. The staff consists of a psychiatrist, Dr. Bailey, a psychologist and an executive secretary. The services of a psychiatrically trained social worker will be available in 1949. During 1948, a total of 27 patients were seen with 22 adults and 5 children.

Duval County—Dr. Selling addressed the Council of Social Agencies, the P.T.A. and the Florida State Conference of Social Work in this area.

The Fall meeting of the Florida State Conference of Social Work had as its theme, "Living in a Troubled World." This was conducted by Dr. Herman Selinsky, neuropsychiatrist of Miami, who attempted to integrate the work in the mental health field from the point of view of the psychiatrist and the social worker.

BUREAU OF LOCAL HEALTH SERVICES

GEORGE A. DAME, M.D., Director

The year 1948 showed further advancement in the organization of accredited county health departments. Two counties, Palm Beach and Citrus, were added leaving only Collier, Lee, Martin, St. Johns and Hernando without accredited health units. Martin has levied a millage for matching funds for a health unit and probably will be organized in 1949. A great deal of interest in organized public health has developed in Lee and St. Johns. Appreciating fully the value to the citizens of the State of full time county health units, the Bureau of Local Health Service and other agencies of the Florida State Board of Health will continue to give all possible service toward full coverage for the entire State.

Another major objective of this Bureau is to secure more adequate financing for the county health units. In 1946-1947 the counties with accredited units contributed 58 cents per capita of their population. In 1947-48 this contribution increased to 64 cents, and in the latter half of 1948 the local contribution increased to 70 cents. Nineteen of the counties contribute 80 cents or more. Of these counties in the upper bracket, eight contribute \$1.00 or more. The banner county is Liberty with \$1.50 per capita:

| | | | |
|------------------|--------|-----------------|--------|
| Liberty | \$1.50 | Leon | \$0.88 |
| Nassau | 1.16 | Volusia | .88 |
| Alachua | 1.06 | Wakulla | .88 |
| Glades | 1.05 | Lafayette | .84 |
| Gilchrist | 1.04 | St. Lucie | .84 |
| Dade | 1.00 | Duval | .83 |
| Flagler | 1.00 | Monroe | .83 |
| Okeechobee | 1.00 | Baker | .80 |
| Dixie | .97 | Pinellas | .80 |
| | | Charlotte | .80 |

On the average the 776 persons now employed in the local health units of the state are better trained, better experienced and better paid than at any time since the organization of the first accredited local health unit in 1930. All of this is reflected in more programs, better programs and better preventive health service to the State of Florida. There is still a shortage in some categories of personnel, particularly nurses. Next most urgent and difficult to secure are physicians. The whole picture, however, looks better.

TABLE XLII
SOME MAJOR ACTIVITIES OF LOCAL HEALTH UNITS DURING 1948

| ACTIVITIES | Alachua | Baker | Bay | Bradford | Brevard | Broward | Calhoun | Charlotte | Citrus | Clay | Columbia | Dade | DeSoto | Dixie | Duval | Escambia |
|--|---------|-------|-------|----------|---------|---------|---------|-----------|--------|-------|----------|---------|--------|-------|--------|----------|
| COMMUNICABLE DISEASE CONTROL | | | | | | | | | | | | | | | | |
| Admissions to service (A 1) | 29 | 1 | 57 | 32 | 20 | 96 | 1 | 17 | 0 | 131 | 38 | 2,767 | 11 | 0 | 78 | 255 |
| Field visits (A 3-9) | 48 | 3 | 84 | 115 | 33 | 184 | 4 | 18 | 0 | 139 | 511 | 3,604 | 15 | 0 | 232 | 973 |
| Smallpox immunizations (A 15) | 994 | 196 | 610 | 534 | 494 | 348 | 258 | 36 | 543 | 189 | 247 | 6,377 | 176 | 148 | 1,360 | 1,700 |
| Diphtheria immunizations (A 16-18) | 960 | 383 | 637 | 472 | 569 | 857 | 95 | 36 | 229 | 413 | 987 | 5,200 | 151 | 74 | 1,918 | 3,287 |
| Typhoid immunizations (A 19) | 5,174 | 1,123 | 1,590 | 127 | 7 | 4,843 | 1,446 | 304 | 806 | 756 | 4,368 | 4,918 | 431 | 1,494 | 3,996 | 12,567 |
| VENEREAL DISEASE CONTROL | | | | | | | | | | | | | | | | |
| Admissions to medical service (B 1) | 1,453 | 45 | 652 | 145 | 60 | 283 | 38 | 4 | 6 | 85 | 83 | 7,331 | 102 | 56 | 4,482 | 1,365 |
| Field visits (B 4) | 304 | 29 | 1,685 | 115 | 258 | 898 | 65 | 43 | 0 | 55 | 64 | 14,368 | 135 | 81 | 2,398 | 5,576 |
| TUBERCULOSIS CONTROL | | | | | | | | | | | | | | | | |
| Admissions to medical service (C 1) | 33 | 10 | 14 | 197 | 32 | 98 | 10 | 0 | 0 | 3 | 9 | 3,429 | 8 | 0 | 0 | 1,789 |
| Admissions to nursing service (C 2) | 377 | 97 | 203 | 72 | 105 | 372 | 22 | 7 | 8 | 51 | 150 | 796 | 11 | 60 | 406 | 924 |
| Number of persons X-rayed (C 4) | 22,108 | 81 | 1,165 | 210 | 53 | 14,235 | 39 | 1,279 | 39 | 32 | 116 | 16,129 | 3,400 | 1,109 | 79 | 25,389 |
| Field nursing visits (C 7) | 642 | 108 | 407 | 327 | 164 | 722 | 7 | 0 | 39 | 103 | 269 | 2,844 | 38 | 88 | 1,134 | 1,417 |
| MATERNITY SERVICE | | | | | | | | | | | | | | | | |
| Cases admitted to medical service (D 1, 8) | 535 | 62 | 178 | 101 | 141 | 518 | 17 | 5 | 1 | 53 | 18 | 2,632 | 0 | 32 | 64 | 555 |
| Cases admitted to nursing service (D 2, 7, 10) | 955 | 147 | 288 | 123 | 243 | 700 | 47 | 9 | 9 | 118 | 389 | 3,631 | 0 | 82 | 395 | 510 |
| Visits by antepartum cases to med. conf. (D 3) | 618 | 85 | 275 | 236 | 381 | 1,041 | 25 | 9 | 1 | 90 | 19 | 6,850 | 0 | 41 | 157 | 1,648 |
| Nursing visits (D 6, 11, 12) | 2,520 | 329 | 633 | 307 | 576 | 1,411 | 116 | 26 | 15 | 270 | 1,064 | 9,020 | 0 | 182 | 1,129 | 1,035 |
| INFANT AND PRESCHOOL HYGIENE | | | | | | | | | | | | | | | | |
| Individuals admitted to medical service (E 1, 8) | 619 | 219 | 115 | 465 | 440 | 914 | 63 | 30 | 2 | 243 | 111 | 3,431 | 74 | 62 | 1,408 | 718 |
| Individuals admitted to nursing service (E 2, 9) | 1,402 | 534 | 323 | 444 | 765 | 1,016 | 87 | 24 | 12 | 243 | 1,055 | 2,618 | 44 | 140 | 2,467 | 631 |
| Visits to medical conferences (E 3, 10) | 822 | 352 | 389 | 954 | 1,507 | 1,730 | 60 | 32 | 2 | 431 | 120 | 8,023 | 74 | 64 | 3,419 | 854 |
| Nursing visits (E 5, 6, 12, 13) | 3,166 | 1,506 | 590 | 1,311 | 1,699 | 2,200 | 250 | 51 | 17 | 519 | 1,947 | 10,784 | 58 | 93 | 6,538 | 1,494 |
| SCHOOL HYGIENE | | | | | | | | | | | | | | | | |
| Inspections by physicians or nurses (F 1) | 533 | 2,127 | 3,915 | 371 | 1,276 | 842 | 785 | 431 | 1,618 | 4,180 | 514 | 111,779 | 790 | 589 | 4,843 | 6,041 |
| Physical examinations (F 2) | 1,045 | 806 | 3,956 | 441 | 429 | 2,443 | 47 | 513 | 469 | 2,295 | 13,930 | 844 | 312 | 312 | 1,151 | 942 |
| Field nursing visits (F 5) | 640 | 207 | 368 | 695 | 187 | 490 | 104 | 83 | 61 | 318 | 5 | 3,143 | 73 | 143 | 737 | 650 |
| Dental inspections (F 7) | 1,788 | 760 | 530 | 194 | 134 | 0 | 71 | 0 | 274 | 176 | 0 | 16,506 | 1 | 0 | 7,693 | 0 |
| SANITATION SERVICE | | | | | | | | | | | | | | | | |
| Approved water supplies installed (J 1) | 432 | 8 | 41 | 22 | 23 | 1,601 | 0 | 1 | 3 | 7 | 344 | 1,265 | 0 | 11 | 1,749 | 193 |
| Approved excreta disposal systems installed (J 2, 3) | 962 | 89 | 554 | 50 | 183 | 4,561 | 48 | 15 | 48 | 44 | 499 | 24 | 133 | 24 | 7,040 | 521 |
| General sanitation field visits (J 4-11) | 3,696 | 982 | 2,468 | 284 | 1,429 | 3,235 | 302 | 468 | 260 | 660 | 729 | 54,786 | 652 | 991 | 7,986 | 4,382 |
| Field visits to food handling establishments (K 2) | 1,565 | 536 | 1,541 | 393 | 1,172 | 1,165 | 218 | 298 | 52 | 821 | 447 | 33,675 | 492 | 551 | 2,087 | 2,051 |
| Field visits to dairy farms (K 4) | 302 | 2 | 291 | 42 | 129 | 76 | 19 | 54 | 0 | 41 | 5 | 1,393 | 143 | 23 | 4 | 613 |
| Field visits to milk plants (K 6) | 262 | 0 | 265 | 28 | 0 | 29 | 0 | 13 | 0 | 15 | 7 | 2,038 | 62 | 12 | 0 | 304 |
| LABORATORY | | | | | | | | | | | | | | | | |
| Specimens examined | 12,228 | 1,077 | 5,159 | 2,034 | 1,158 | 6,018 | 2,029 | 467 | 1,031 | 1,503 | 5,043 | 177,788 | 1,163 | 1,546 | 21,443 | 22,476 |

TABLE XLII (continued)
SOME MAJOR ACTIVITIES OF LOCAL HEALTH UNITS DURING 1948

| ACTIVITIES | Flagler | Franklin | Gadsden | Gilchrist | Glades | Gulf | Hamilton | Hardee | Healdry | Highlands | Hillsborough | Holmes | Indian River | Jackson | Jefferson | Lafayette |
|--|---------|----------|---------|-----------|--------|-------|----------|--------|---------|-----------|--------------|--------|--------------|---------|-----------|-----------|
| COMMUNICABLE DISEASE CONTROL | | | | | | | | | | | | | | | | |
| Admissions to service (A 1) | 8 | 51 | 61 | 0 | 2 | 4 | 9 | 13 | 5 | 20 | 265 | 20 | 17 | 23 | 92 | 3 |
| Field visits (A 3-9) | 58 | 86 | 85 | 0 | 126 | 19 | 73 | 20 | 7 | 42 | 484 | 24 | 23 | 32 | 111 | 4 |
| Smallpox immunizations (A 15) | 62 | 251 | 1,214 | 26 | 47 | 213 | 52 | 973 | 187 | 133 | 3,786 | 510 | 141 | 129 | 54 | 144 |
| Diphtheria immunizations (A 16-18) | 113 | 213 | 505 | 74 | 64 | 117 | 217 | 726 | 62 | 464 | 3,940 | 492 | 808 | 647 | 130 | 141 |
| Typhoid immunizations (A 19) | 3,12 | 761 | 3,419 | 614 | 276 | 973 | 1,795 | 318 | 832 | 136 | 222 | 1,819 | 483 | 8,785 | 3,154 | 469 |
| VENEREAL DISEASE CONTROL | | | | | | | | | | | | | | | | |
| Admissions to medical service (B 1) | 28 | 99 | 226 | 1 | 9 | 46 | 69 | 45 | 67 | 149 | 1,964 | 41 | 40 | 440 | 44 | 28 |
| Field visits (B 4) | 71 | 171 | 321 | 17 | 56 | 99 | 83 | 84 | 50 | 264 | 7,545 | 44 | 60 | 113 | 210 | 17 |
| TUBERCULOSIS CONTROL | | | | | | | | | | | | | | | | |
| Admissions to medical service (C 1) | 0 | 8 | 159 | 0 | 0 | 7 | 34 | 55 | 0 | 75 | 2,847 | 7 | 1 | 13 | 3 | 8 |
| Admissions to nursing service (C 2) | 9 | 45 | 268 | 27 | 11 | 49 | 10 | 29 | 7 | 108 | 2,577 | 132 | 167 | 162 | 97 | 43 |
| Number of persons X-rayed (C 4) | 23 | 1,414 | 1,884 | 39 | 53 | 2,381 | 1,041 | 1,529 | 6 | 78 | 8,027 | 1,867 | 179 | 381 | 1,845 | 536 |
| Field nursing visits (C 7) | 16 | 62 | 536 | 23 | 64 | 149 | 73 | 69 | 6 | 148 | 3,602 | 1,73 | 232 | 248 | 69 | 59 |
| MATERNITY SERVICE | | | | | | | | | | | | | | | | |
| Cases admitted to medical service (D 1, 8) | 10 | 32 | 296 | 4 | 7 | 6 | 7 | 0 | 30 | 28 | 1,577 | 39 | 0 | 166 | 21 | 10 |
| Cases admitted to nursing service (D 2, 7, 10) | 37 | 35 | 827 | 28 | 27 | 70 | 48 | 6 | 14 | 50 | 2,449 | 78 | 76 | 344 | 138 | 31 |
| Visits by antepartum cases to med. conf. (D 3) | 26 | 66 | 455 | 4 | 18 | 7 | 8 | 0 | 55 | 34 | 3,059 | 18 | 0 | 207 | 26 | 14 |
| Nursing visits (D 5, 6, 11, 12) | 68 | 74 | 2,189 | 86 | 44 | 258 | 151 | 11 | 20 | 97 | 6,800 | 181 | 148 | 914 | 256 | 44 |
| INFANT AND PRESCHOOL HYGIENE | | | | | | | | | | | | | | | | |
| Individuals admitted to medical service (E 1, 8) | 10 | 103 | 337 | 10 | 7 | 9 | 31 | 2 | 61 | 230 | 3,492 | 55 | 88 | 385 | 43 | 120 |
| Individuals admitted to nursing service (E 2, 9) | 16 | 59 | 1,901 | 134 | 17 | 237 | 67 | 70 | 23 | 135 | 4,484 | 142 | 85 | 313 | 194 | 118 |
| Visits to medical conferences (E 3, 10) | 12 | 178 | 523 | 13 | 7 | 18 | 36 | 2 | 61 | 251 | 7,132 | 60 | 88 | 409 | 43 | 136 |
| Nursing visits (E 5, 6, 12, 13) | 31 | 95 | 5,179 | 344 | 30 | 573 | 364 | 96 | 29 | 367 | 10,188 | 255 | 298 | 681 | 286 | 257 |
| SCHOOL HYGIENE | | | | | | | | | | | | | | | | |
| Inspections by physicians or nurses (F 1) | 274 | 1,156 | 4,348 | 129 | 245 | 311 | 232 | 3,182 | 345 | 1,136 | 23,224 | 551 | 216 | 902 | 1,825 | 224 |
| Physical examinations (F 2) | 89 | 311 | 469 | 894 | 180 | 0 | 989 | 1,282 | 493 | 1,662 | 9,373 | 471 | 718 | 1,447 | 1,069 | 326 |
| Field nursing visits (F 5) | 44 | 36 | 748 | 157 | 28 | 36 | 15 | 123 | 14 | 283 | 2,871 | 0 | 255 | 236 | 49 | 178 |
| Dental inspections (F 7) | 24 | 0 | 3,596 | 0 | 87 | 0 | 127 | 147 | 187 | 0 | 12,677 | 0 | 202 | 0 | 0 | 0 |
| SANITATION SERVICE | | | | | | | | | | | | | | | | |
| Approved water supplies installed (J 1) | 11 | 26 | 282 | 36 | 0 | 12 | 11 | 5 | 0 | 2 | 2,731 | 43 | 184 | 4 | 48 | 0 |
| Approved excreta disposal systems installed (J 2, 3) | 16 | 51 | 571 | 61 | 16 | 90 | 58 | 45 | 7 | 26 | 2,835 | 81 | 175 | 35 | 88 | 58 |
| General sanitation field visits (J 4-11) | 176 | 679 | 1,066 | 394 | 33 | 1,290 | 448 | 592 | 54 | 260 | 21,862 | 395 | 484 | 403 | 501 | 251 |
| Field visits to food handling establishments (K 2) | 71 | 476 | 571 | 221 | 170 | 938 | 405 | 529 | 276 | 354 | 13,309 | 164 | 486 | 355 | 156 | 165 |
| Field visits to dairy farms (K 4) | 4 | 0 | 115 | 0 | 90 | 39 | 36 | 9 | 49 | 93 | 1,767 | 69 | 54 | 510 | 47 | 13 |
| Field visits to milk plants (K 6) | 2 | 0 | 44 | 2 | 0 | 0 | 36 | 28 | 0 | 63 | 1,257 | 0 | 13 | 20 | 3 | 5 |
| LABORATORY | | | | | | | | | | | | | | | | |
| Specimens examined | 634 | 2,988 | 5,053 | 1,958 | 891 | 1,721 | 2,428 | 1,055 | 1,013 | 2,120 | 71,652 | 1,202 | 868 | 3,709 | 1,338 | 844 |

TABLE XLII (continued)
SOME MAJOR ACTIVITIES OF LOCAL HEALTH UNITS DURING 1948

| ACTIVITIES | Lake | Leon | Levy | Liberty | Madison | Manatee | Marion | Montroe | Nassau | Okaloosa | Okeechobee | Orange | Osceola | Palm Beach | Pasco | Pinellas |
|--|-------|--------|-------|---------|---------|---------|--------|---------|--------|----------|------------|--------|---------|------------|-------|----------|
| COMMUNICABLE DISEASE CONTROL | | | | | | | | | | | | | | | | |
| Admissions to service (A 1) | 81 | 23 | 23 | 14 | 27 | 65 | 18 | 85 | 23 | 181 | 7 | 384 | 9 | 153 | 42 | 95 |
| Field visits (A 3-9) | 167 | 53 | 28 | 27 | 93 | 152 | 52 | 266 | 42 | 181 | 25 | 604 | 9 | 256 | 59 | 223 |
| Smallpox immunizations (A 15) | 1,728 | 1,686 | 93 | 248 | 171 | 1,312 | 1,468 | 356 | 656 | 242 | 143 | 1,871 | 154 | 756 | 1,098 | 1,205 |
| Diphtheria immunizations (A 16-18) | 1,238 | 1,077 | 87 | 164 | 638 | 1,387 | 962 | 632 | 840 | 308 | 288 | 2,844 | 176 | 143 | 1,087 | 1,299 |
| Typhoid immunizations (A 19) | 58 | 3,859 | 1,885 | 789 | 1,846 | 4,257 | 6,227 | 1,104 | 1,477 | 1,495 | 499 | 7,836 | 45 | 2,178 | 4 | 549 |
| VENEREAL DISEASE CONTROL | | | | | | | | | | | | | | | | |
| Admissions to medical service (B 1) | 71 | 2,725 | 42 | 27 | 99 | 410 | 411 | 266 | 34 | 25 | 40 | 596 | 84 | 708 | 168 | 814 |
| Field visits (B 4) | 186 | 1,944 | 142 | 73 | 145 | 402 | 1,071 | 128 | 148 | 20 | 164 | 1,018 | 199 | 1,781 | 217 | 1,286 |
| TUBERCULOSIS CONTROL | | | | | | | | | | | | | | | | |
| Admissions to medical service (C 1) | 0 | 55 | 8 | 16 | 29 | 208 | 227 | 10 | 33 | 3 | 0 | 196 | 4 | 58 | 26 | 970 |
| Admissions to nursing service (C 2) | 225 | 407 | 98 | 20 | 38 | 227 | 191 | 267 | 188 | 15 | 32 | 645 | 82 | 180 | 96 | 915 |
| Number of persons X-rayed (C 4) | 9,782 | 362 | 36 | 30 | 3,694 | 7,941 | 248 | 760 | 224 | 2,413 | 66 | 37,697 | 84 | 46,853 | 37 | 4,750 |
| Field nursing visits (C 7) | 490 | 377 | 128 | 42 | 74 | 480 | 357 | 521 | 509 | 42 | 122 | 1,754 | 175 | 199 | 109 | 1,161 |
| MATERNITY SERVICE | | | | | | | | | | | | | | | | |
| Cases admitted to medical service (D 1, 8) | 179 | 302 | 48 | 9 | 126 | 19 | 1 | 144 | 41 | 3 | 0 | 492 | 33 | 512 | 38 | 544 |
| Cases admitted to nursing service (D 2, 7, 10) | 322 | 524 | 48 | 61 | 196 | 111 | 97 | 209 | 239 | 44 | 24 | 609 | 38 | 740 | 57 | 655 |
| Visits by antepartum cases to med. conf. (D 3) | 241 | 874 | 111 | 11 | 211 | 21 | 0 | 112 | 91 | 1 | 0 | 1,103 | 67 | 1,047 | 35 | 1,498 |
| Nursing visits (D 5, 6, 11, 12) | 722 | 1,110 | 63 | 154 | 387 | 167 | 154 | 776 | 540 | 87 | 58 | 1,059 | 117 | 2,563 | 96 | 2,383 |
| INFANT AND PRESCHOOL HYGIENE | | | | | | | | | | | | | | | | |
| Individuals admitted to medical service (E 1, 8) | 285 | 152 | 13 | 26 | 85 | 480 | 21 | 99 | 241 | 2 | 39 | 1,343 | 197 | 451 | 197 | 2,180 |
| Individuals admitted to nursing service (E 2, 9) | 1,090 | 394 | 71 | 102 | 79 | 607 | 253 | 382 | 573 | 30 | 48 | 1,485 | 220 | 706 | 198 | 2,411 |
| Visits to medical conferences (E 3, 10) | 304 | 234 | 16 | 29 | 87 | 1,057 | 63 | 209 | 624 | 3 | 39 | 2,035 | 322 | 751 | 203 | 4,285 |
| Nursing visits (E 5, 6, 12, 13) | 1,997 | 631 | 75 | 236 | 124 | 860 | 541 | 2,709 | 1,271 | 82 | 122 | 2,501 | 679 | 2,709 | 261 | 7,041 |
| SCHOOL HYGIENE | | | | | | | | | | | | | | | | |
| Inspections by physicians or nurses (F 1) | 3,035 | 275 | 1,423 | 744 | 309 | 2,448 | 6,515 | 1,954 | 4,958 | 472 | 179 | 5,898 | 1,323 | 501 | 1,576 | 2,746 |
| Physical examinations (F 2) | 75 | 726 | 1,658 | 220 | 840 | 235 | 535 | 3,434 | 244 | 246 | 283 | 6,229 | 787 | 577 | 565 | 7,611 |
| Field nursing visits (F 5) | 499 | 184 | 198 | 126 | 318 | 426 | 219 | 396 | 666 | 499 | 127 | 2,086 | 262 | 215 | 775 | 3,610 |
| Dental inspections (F 7) | 0 | 0 | 0 | 197 | 0 | 10 | 3,255 | 489 | 0 | 1 | 117 | 5,299 | 90 | 3 | 881 | 18,778 |
| SANITATION SERVICES | | | | | | | | | | | | | | | | |
| Approved water supplies installed (J 1) | 185 | 512 | 32 | 1 | 32 | 240 | 218 | 0 | 41 | 8 | 55 | 173 | 63 | 22 | 31 | 25 |
| Approved excreta disposal systems installed (J 2, 3) | 469 | 380 | 227 | 16 | 105 | 799 | 320 | 1 | 137 | 254 | 3 | 1,605 | 349 | 275 | 211 | 1,261 |
| General sanitation field visits (J 4-11) | 2,131 | 9,501 | 1,083 | 135 | 786 | 2,574 | 1,405 | 1,147 | 1,623 | 585 | 138 | 5,351 | 1,558 | 2,484 | 958 | 10,028 |
| Field visits to food handling establishments (K 2) | 1,045 | 1,053 | 166 | 59 | 1,72 | 1,006 | 1,099 | 1,112 | 928 | 175 | 207 | 3,227 | 1,817 | 243 | 575 | 6,880 |
| Field visits to dairy farms (K 4) | 33 | 213 | 2 | 0 | 159 | 382 | 201 | 0 | 1 | 0 | 29 | 0 | 126 | 156 | 74 | 414 |
| Field visits to milk plants (K 6) | 28 | 136 | 0 | 0 | 40 | 73 | 63 | 47 | 1 | 0 | 9 | 0 | 0 | 27 | 20 | 859 |
| LABORATORY | | | | | | | | | | | | | | | | |
| Specimens examined | 2,658 | 10,828 | 1,241 | 1,155 | 3,087 | 4,998 | 5,767 | 4,495 | 3,021 | 1,651 | 1,179 | 9,461 | 760 | 5,832 | 3,152 | 22,161 |

TABLE XLII (continued)
SOME MAJOR ACTIVITIES OF LOCAL HEALTH UNITS DURING 1948

| ACTIVITIES | | | | | | | | | | | | | | | Total for 1948 |
|--|--------|-----------|------------|----------|----------|--------|----------|--------|-------|---------|---------|--------|------------|--|----------------|
| Polk | Putnam | St. Lucie | Santa Rosa | Sarasota | Seminole | Sumter | Suwannee | Taylor | Union | Volusia | Wakulla | Walton | Washington | | |
| COMMUNICABLE DISEASE CONTROL | | | | | | | | | | | | | | | |
| Admissions to service (A 1) | | | | | | | | | | | | | | | |
| Field visits (A 3-9) | | | | | | | | | | | | | | | |
| Smallpox immunizations (A 15) | | | | | | | | | | | | | | | |
| Diphtheria immunizations (A 16-18) | | | | | | | | | | | | | | | |
| Typhoid immunizations (A 19) | | | | | | | | | | | | | | | |
| VENEREAL DISEASE CONTROL | | | | | | | | | | | | | | | |
| Admissions to medical service (B 1) | | | | | | | | | | | | | | | |
| Field visits (B 4) | | | | | | | | | | | | | | | |
| TUBERCULOSIS CONTROL | | | | | | | | | | | | | | | |
| Admissions to medical service (C 1) | | | | | | | | | | | | | | | |
| Admissions to nursing service (C 2) | | | | | | | | | | | | | | | |
| Number of persons X-rayed (C 4) | | | | | | | | | | | | | | | |
| Field nursing visits (C 7) | | | | | | | | | | | | | | | |
| MATERNITY SERVICE | | | | | | | | | | | | | | | |
| Cases admitted to medical service (D 1, 8) | | | | | | | | | | | | | | | |
| Cases admitted to nursing service (D 2, 7, 10) | | | | | | | | | | | | | | | |
| Visits by antepartum cases to med. conf. (D 3) | | | | | | | | | | | | | | | |
| Nursing visits (D 5, 6, 11, 12) | | | | | | | | | | | | | | | |
| INFANT AND PRESCHOOL HYGIENE | | | | | | | | | | | | | | | |
| Individuals admitted to medical service (E 1, 8) | | | | | | | | | | | | | | | |
| Individuals admitted to nursing service (E 2, 9) | | | | | | | | | | | | | | | |
| Visits to medical conferences (E 3, 10) | | | | | | | | | | | | | | | |
| Nursing visits (E 5, 6, 12, 13) | | | | | | | | | | | | | | | |
| SCHOOL HYGIENE | | | | | | | | | | | | | | | |
| Inspections by physicians or nurses (F 1) | | | | | | | | | | | | | | | |
| Physical examinations (F 2) | | | | | | | | | | | | | | | |
| Field nursing visits (F 5) | | | | | | | | | | | | | | | |
| Dental inspections (F 7) | | | | | | | | | | | | | | | |
| SANITATION SERVICES | | | | | | | | | | | | | | | |
| Approved water supplies installed (J 1) | | | | | | | | | | | | | | | |
| Approved excreta disposal systems installed (J 2, 3) | | | | | | | | | | | | | | | |
| General sanitation field visits (J 4-11) | | | | | | | | | | | | | | | |
| Field visits to food handling establishments (K 2) | | | | | | | | | | | | | | | |
| Field visits to dairy farms (K 4) | | | | | | | | | | | | | | | |
| Field visits to milk plants (K 6) | | | | | | | | | | | | | | | |
| LABORATORY | | | | | | | | | | | | | | | |
| Specimens examined | | | | | | | | | | | | | | | |

FIGURE 7

We present here a chart showing the 62 Florida counties with currently active health departments. Leading the list in the lower left hand corner is Taylor, the first to establish a health department after the Enabling Act was passed by the Legislature to allow counties to participate with the State Board of Health in public health control. Leon followed suit the next year. However, Taylor's department was closed from 1933 through 1935, while Leon's has been continuous in its activities. Seven other counties, Hendry, Calhoun, Liberty, Osceola, Gilchrist, Flagler and Hamilton also decided to discontinue their public health programs after they had functioned a number of years. However, all seven have been readmitted to active service.

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FIGURE 7

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DIVISION OF PUBLIC HEALTH NURSING

RUTH E. METTINGER, Director

The Division of Public Health Nursing's number one problem—the great turnover of nursing personnel—was stabilized somewhat during 1948. By the end of the year there were 274 nurses employed in the county health departments of the state, but there were 20 vacancies. This total includes those public health nurses and clinic nurses employed on a full time basis. Other agencies in the state employed 101 public health nurses.

There still is a shortage of nurses, due to the large demand for their services. The national student recruitment committee, however, reported an increase over 1947 of nearly 5000 student nurses entering training throughout the country. Florida received her share, for student enrollment in the state increased one-third during 1948.

The Nursing Division has participated in the formulation of plans, policies and programs for public health nursing as it relates to the activities of all of the bureaus and divisions of the State Board of Health.

A total of 156 visits and 93 revisits have been made to county health units by all the nursing consultants, including those consultants attached to other bureaus of the State Board of Health. Many revisits had to be made to counties where untrained and inexperienced nurses were employed.

The nursing consultants have held individual and staff conferences with the county health unit nurses in discussing field visits, content of records, and general problems. Demonstrations of different nursing techniques and bag demonstrations were also held. These conferences on their field visits are being reflected in better teaching during home calls and in giving more demonstrations to mothers.

On two occasions consultants relieved the nurses in two counties from two to four weeks. The county nurses were ill and the health officers were unable to secure relief nurses for such a short period of time.

At the Midwife Institute held in Miami for seventeen days, 28 midwives attended, including 4 from Broward County and a student from Key West. The State Certified Midwife Teacher was one of the discussion leaders and the subjects covered included maternity care during the antepartum, delivery and postpartum period, and the coordination of the service between midwives and public health nurses.

A total of 461 midwives were licensed in 1948. Of these, one was 84 years old, two were 79, and twenty-seven were 73 years old. The remaining midwives were between the ages of 25 and 58. An effort is being made to retire those unable to continue the work and to replace them by younger women. Ten midwives were retired in 1948.

Hospitals have been encouraged to participate with student-midwife training in areas where the need for replacing older midwives is urgent. The Nursing Division coordinates this program with the Bureau of Maternal and Child Health.

A meeting of the State Supervising Nurses was held January 21-22. The round table discussions centered around two subjects: (1) the public health nursing program in the training schools for nurses; and (2) the tuberculosis program as it affects the public health nurses.

Meetings of the state consultants were held frequently to discuss program planning for county health unit nurses and to avoid overlapping of work. All nursing consultants have attended the staff meetings of the field technical staff.

The Division has continued to arrange field experience for nurses completing approved courses in public health nursing. The University of North Carolina, George Peabody College and Vanderbilt University have sent a total of 11 students to four county health units for two months' training.

Arrangements were also made with four hospitals in the state whereby student nurses from the hospitals were given field experience in public health nursing from two days to six weeks. Several of these nurses have decided to enter the field of public health nursing upon completion of their training.

Ten public health nurses have taken the two months' orientation course at the In-Service Training Center in Gainesville.

One-year scholarships in public health nursing were given to two of the county health unit nurses. In addition to this, several nurses entered universities on their own expense and on the GI training program to either complete their degree in nursing or to take the basic course in public health nursing.

Five public health nurses took the short course in cancer, tuberculosis, and mental hygiene offered at the University of North Carolina during the summer.

DIVISION OF DENTAL HEALTH

GEORGE A. DAME, M.D., Acting Director

In general, the program and staff of the Division of Dental Health, for 1948, were virtually the same as for 1947. A full-time director was employed early in the year and plans were made for an expansion of dental activities. However, his resignation at the end of six months to enter private practice, together with the lack of available dentists for field work, prevented any appreciable extension of the dental program on the state level. The department's one dentist, using a mobile unit, continued operation of the educational-correctional dental clinics. Seventeen different counties received this service, and two of the counties were visited twice because of the great need for dental attention to the underprivileged in them. Reference to Table XLIII will show that a large amount of work was done by this one dentist.

Six county health departments, as compared to four in 1947, operated dental clinics in connection with their general health programs. One of them employed both a full-time and a part-time dentist. Three of the counties operated the entire year, one for eleven months, and two for three months. Table XLIV indicates the commendable accomplishments in dental service rendered by these six health departments. Part-time emergency dental corrective service was provided for maternal patients and preschool and elementary school children through county health department facilities in only four counties, as local dentists were either not available or did not have time to devote to this work. In this connection, see Table XLV.

The U. S. Public Health Service was given full cooperation and every assistance possible in carrying out its demonstration program on the topical application of sodium fluoride as a dental caries preventive measure.

Definite hopes are now held for the advancement of the dental health program during 1949. A full-time director will assume charge on or about February 1. He is a very competent dental surgeon who has a number of years of experience in public health dentistry to his credit; and there is every reason to believe that notable progress will be made in dental health activities during 1949.

TABLE XLIII
STATE DENTOMOBILE DEMONSTRATION CLINICS

| | SCHOOL | |
|-------------------------------------|--------|--------|
| Patients, new | 2,996 | |
| Patients, repeat | 734 | |
| Inspections | 3,093 | |
| Prophylaxis | 3,014 | |
| Corrections: | | |
| Fillings (Deciduous & Permanent) | 1,467 | |
| Amalgam | 223 | |
| Cement | 31 | |
| Silicate | 721 | |
| Extractions (Deciduous & Permanent) | 966 | |
| Treatments | ..... |  |
| X-rays | 6,730 | |
| Miscellaneous | | 10,138 |
| Total corrections | | |
| Health Education: | 3,750 | |
| Chair Instruction | 4,639 | |
| No. Pieces Literature Given Out | 129 | |
| No. Classroom Talks | 4,070 | |
| Attendance, Classroom Talks | | |

TABLE XLIV
FULL-TIME COUNTY HEALTH DEPARTMENT DENTAL CLINICS

| | 3 mos. Alachua | 12 mos. Dade | 11 mos. Duval | 12 mos. Hills- boro | 12 mos. Orange | 3 mos. Pin- ellas | Totals |
|-------------------------------------|-------------------|-----------------|------------------|---------------------------|-------------------|-------------------------|--------|
| Patients, new | 807 | 702 | 484 | 3,612 | 1,260 | 94 | 6,959 |
| Patients, repeat | 74 | 1,358 | 554 | 3,280 | 508 | 153 | 5,927 |
| Inspections | 1,838 | 12,701 | 7,713 | 13,750 | 6,848 | 17,286 | 60,136 |
| Prophylaxis | 799 | 229 | 40 | 451 | 84 | 6 | 1,607 |
| Corrections: | | | | | | | |
| Fillings (Deciduous & Permanent) | 177 | 1,596 | 476 | 3,562 | 2,108 | 191 | 8,110 |
| Amalgam | 76 | 713 | 158 | 425 | 4 | 48 | 1,424 |
| Cement | 2 | 207 | 95 | 529 | 344 | 28 | 1,205 |
| Silicate | 46 | 489 | 429 | 4,943 | 1,355 | 77 | 7,339 |
| Extractions (Deciduous & Permanent) | 74 | 886 | 122 | 1,199 | 1,192 | 10 | 3,483 |
| Treatments | 16 | 20 | 5 | 61 | 20 | ..... | 122 |
| X-rays | 660 | 245 | 46 | 323 | ... | ..... | 1,274 |
| Miscellaneous | | | | | | | |
| Total corrections | 1,051 | 4,156 | 1,331 | 11,042 | 5,023 | 354 | 22,957 |
| Health Education: | | | | | | | |
| Chair Instruction | ..... | 680 | ..... | 358 | 233 | 20 | 1,291 |
| No. Pieces Literature given out | ..... | 880 | ..... | 1,609 | 6,170 | ..... | 8,659 |
| No. Talks Presented | ..... | 22 | 32 | ..... | 2 | 2 | 56 |
| Attendance at Talks | ..... | 480 | 10,292 | ..... | 45 | 23 | 10,840 |
| No. Movies Shown | ..... | ..... | 69 | ..... | ..... | ..... | 69 |
| Attendance at Movies | ..... | ..... | 10,177 | ..... | ..... | ..... | 10,177 |

TABLE XLV
PART-TIME DENTAL SERVICE IN COUNTY HEALTH DEPARTMENTS

| Counties & No. Dentists Par- ticipating | Patients new | Patients repeat | Treat- ments | Extrac- tions | Fillings | | | Prophy- laxis |
|---|-----------------|--------------------|-----------------|------------------|----------|--------|----------|------------------|
| | | | | | Amalgam | Cement | Silicate | |
| Franklin | 1 | 2 | .. | 1 | 9 | 8 | .. | .. |
| Lake | 1 | 3 | .. | 12 | 2 | .. | .. | .. |
| Monroe | 1 | 42 | 67 | 18 | 30 | 1 | .. | 6 |
| Palm Beach | 1 | 8 | 2 | 24 | 5 | 1 | .. | 3 |

BUREAU OF LABORATORIES

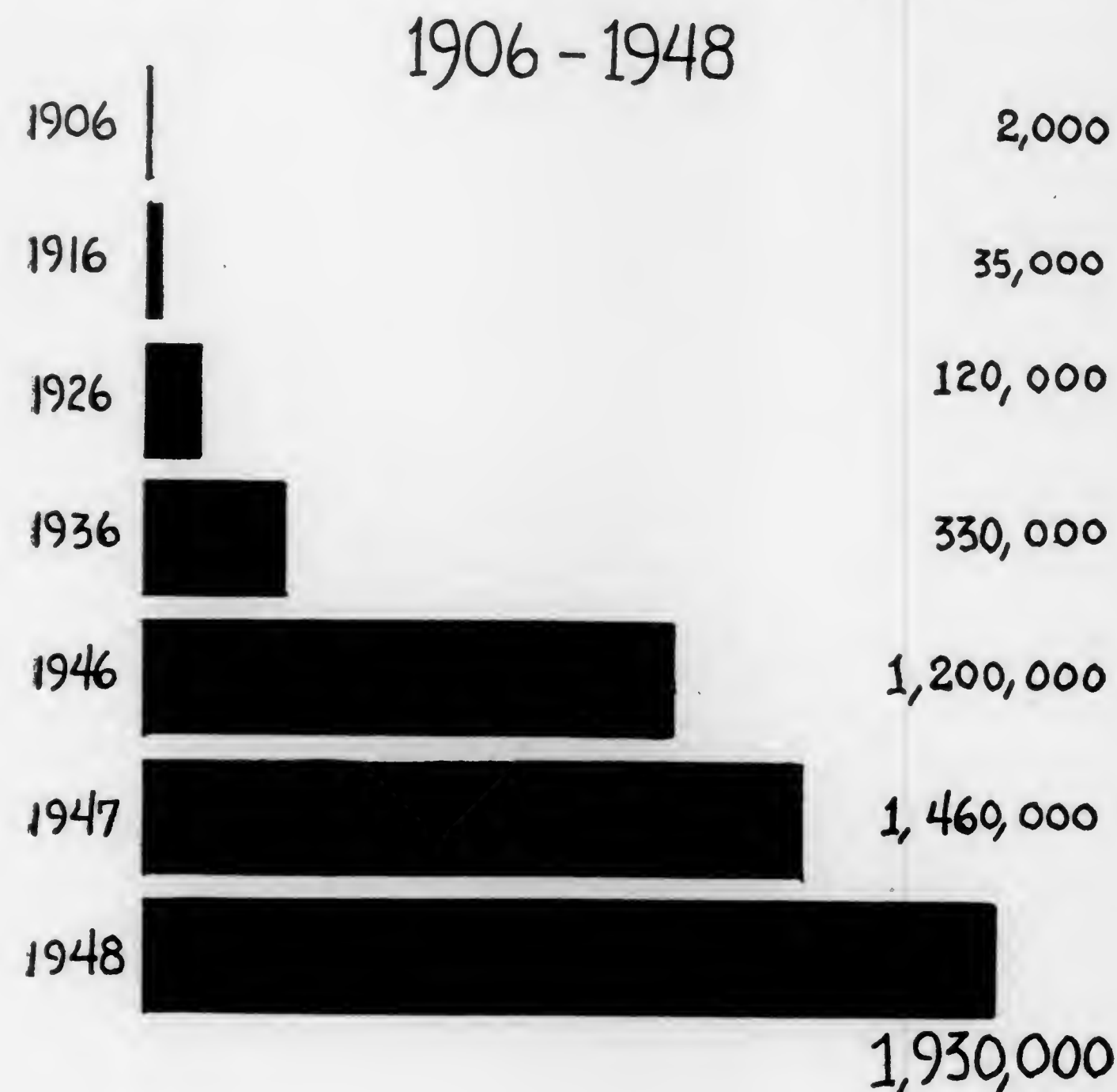
ALBERT V. HARDY, M.D., Dr. P.H., Director

DIAGNOSTIC SERVICES

The year of 1948 has been one of continuing growth as shown in Figure No. 8. In the past, there have been periods of excessive demand for laboratory service as during the time of Selective Service examinations. The year under review had no such unusual demands, but the amount of work performed substantially exceeded that of any preceding year. The volume of service provided stands in marked contrast to that of earlier decades.

Figure 8

EXAMINATIONS PERFORMED BUREAU OF LABORATORIES



The total number of examinations performed in each of the laboratories is shown in Table XLVI. During the year there was a relatively small increase in the Jacksonville laboratory. However, in all others, there was a marked increase and particularly so in Tallahassee and Pensacola. The figure for the Melbourne Hospital laboratory (Rapid Treatment Center) for 1947 covers the six months during which it was in operation, as does that for Orlando in 1948. This work in part, has been redistributed intentionally. Heretofore a substantial number of specimens from all parts of the State came to the Jacksonville laboratory. At the beginning of the year the State was divided into "Laboratory Regions". Now work requested by health departments or physicians within a region is directed to the "Regional Laboratory". As in the past, certain tests demanding special equipment or experience are directed to Jacksonville or to some regional laboratory able to provide the service requested. The redistribution was attained by regularly supplying containers bearing the address of the appropriate regional laboratory.

It has been customary heretofore to use the designation "Central" and "Branch" laboratories. It is believed that the designation "Regional Laboratory" is more appropriate. This will be used in the future for the Tampa, Miami, Pensacola, Tallahassee and Orlando laboratories. The Melbourne Hospital laboratory is an essential part of the Rapid Treatment Center, but operates under the technical direction of the Bureau of Laboratories. Pinellas County laboratory is a part of that County Unit, but also operates under the technical direction of the Bureau. These two laboratories are active and effective parts of the State Public Health laboratory system and differ from laboratories wholly within the Bureau only in budgetary arrangements.

TABLE XLVI
TOTAL NUMBER OF EXAMINATIONS PERFORMED BY LABORATORIES, 1946 - 1948

| Laboratories | Year | | |
|----------------------|-----------|-----------|-----------|
| | 1946 | 1947 | 1948 |
| Jacksonville Central | 673,316 | 808,396 | 845,957 |
| Tampa Regional | 286,067 | 336,750 | 440,172 |
| Miami Regional | 217,950 | 227,561 | 364,739 |
| Pensacola Regional | 35,262 | 56,726 | 112,486 |
| Tallahassee Regional | 19,828 | 18,531 | 76,691 |
| Orlando Regional | | | 19,727* |
| Melbourne Hospital | | 15,461* | 58,776 |
| Pinellas County | | | 11,700* |
| Total | 1,232,424 | 1,463,425 | 1,930,248 |

*6 months operation

Table XLVII shows the services provided by each of the laboratories. In comparing the present with previous years, a marked modification in the arrangement of data is apparent. Following careful studies, the plan for the accumulation of data used in monthly and annual reports was extensively revised. The services are now shown in the five broad divisions of serology, diagnostic bacteriology, sanitary bacteriology, parasitology and chemistry. The subdivisions shown correspond with divisions of responsibility in the laboratory.

The major changes in volume of work in 1948 as compared with 1947 were these: There was an increase of over 200,000 serologic tests for syphilis. This does not fully depict the increase in volume of work in serology. Included among the tests were 93,000 quantitative serologic tests, an increase of 35,000 over the preceding year. Each quantitative test involves diluting the serum into six specimens, each one of which is tested. In view of the importance of the quantitative test in the follow-up of patients treated with penicillin, this added volume of work is clearly indicated.

The number of examinations for tuberculosis was almost double. This is largely due to culturing all specimens received (in all but one laboratory). Previously cultures were performed only on request; the reports at that time were based on microscopic examination of smears. During five months experience in the Jacksonville laboratory there would have been 876 positive findings by smear examination only. The cultures revealed positive findings in 228 more, an increase of 26 percent. It is of high importance that tubercle bacilli be found when present only in small numbers. Commonly these findings occur in individuals well enough to move freely in family, social and business groups. Isolation as an "open case" must rest on laboratory findings. The added cost of cultures in time and materials obviously is warranted.

Sanitary bacteriology had the most marked increase in volume of work. Milk examinations in 1947 totaled 39,281; in 1948, 52,984. Water examinations in 1947 totaled 40,475; in 1948, 113,349. This latter increase is explained in part by pollution surveys, particularly that in the Apalachicola area.

Miscellaneous diagnostic bacteriological examinations increased substantially. More and more the definitive bacteriology is being left to the State laboratories.

In contrast with these fields in which the volume of work markedly increased, there was no notable change in fecal specimens submitted for parasitological examination, blood smears for malaria, blood specimens for agglutinations, and only a slight increase in the examinations for gonorrhea.

Annual reports of recent years have not provided any data as to the number of specimens received and examined. To illustrate, each blood specimen sent to the Board of Health for a serological test for syphilis is examined by two separate and distinct serologic tests. If positive there will be an additional quantitative examination, and if doubtful two to five further tests designed to confirm or clarify findings. These examinations are tabulated and provide the best possible measure of volume of work. However, the actual number of specimens handled has not been recorded heretofore. Beginning in 1948, accurate records pertaining to both total tests and specimens received were accumulated.

TABLE XLVII
EXAMINATIONS PERFORMED BY LABORATORIES, 1948

| | Jacksonville | Tampa | Miami | Pensacola | Tallahassee | Melbourne | Orlando | St. Petersburg | Totals |
|----------------------------------|--------------|---------|---------|-----------|-------------|-----------|---------|----------------|-----------|
| Serology | 513,167 | 309,857 | 276,079 | 77,403 | 34,984 | 42,788 | 9,713 | | 1,263,991 |
| Syphilis | 25,000 | 7,513 | 9,237 | 1,450 | 4,142 | 0 | 777 | | 48,119 |
| Agglutinations and Related Tests | 4,038 | 0 | 0 | 0 | 0 | 0 | 3 | | 4,041 |
| Blood Typings (Rh) | | | | | | | | | |
| Diagnostic Bacteriology | 8,606 | 3,902 | 662 | 1,306 | 261 | | 10 | | 14,747 |
| Nose and Throat | 23,926 | 3,492 | 6,634 | 1,747 | 787 | | 305 | | 36,821 |
| Tuberculosis | 1,172 | 0 | 16 | 0 | 95 | | 51 | | 1,334 |
| Sputum | 19,533 | 29,197 | 18,419 | 5,082 | 4,144 | | 837 | | 77,212 |
| Gonorrhea | 10,415 | 17,282 | 12,493 | 3,987 | 1,683 | | 0 | | 45,870 |
| Smear | 69,390 | 11,527 | 2,631 | 2,741 | 11,148 | | 454 | | 97,891 |
| Culture | 1,833 | 32 | 91 | 0 | 0 | | 4 | | 1,960 |
| Enteric | 969 | 42 | 62 | 0 | 0 | | 0 | | 1,073 |
| Blood Culture | 512 | 297 | 165 | 31 | 0 | | 0 | | 1,005 |
| Food Poisoning | 17,675 | 247 | 741 | 4 | 150 | 2,459 | 18 | | 21,294 |
| Rabies | | | | | | | | | |
| Miscellaneous | | | | | | | | | |
| Sanitary Bacteriology | 5,437 | 20,491 | 12,262 | 4,105 | 5,170 | | 494 | 5,025 | 52,984 |
| Dairy Products | 18,585 | 5,343 | 6,867 | 1,493 | 3,087 | | 1,876 | 2,979 | 40,180 |
| Drinking | 6,581 | 2,458 | 1,242 | 104 | 459 | | 778 | 979 | 12,601 |
| Pools and Beaches | 42,154 | 5,018 | 2,119 | 885 | 3,840 | | 4,000 | 2,717 | 60,568 |
| Pollution Surveys | | 0 | 0 | 0 | 0 | | 0 | 0 | 154 |
| Shellfish | | | | | | | | | |
| Parasitology | 60,214 | 20,419 | 5,522 | 11,384 | 5,530 | | 248 | | 103,317 |
| Intestinal Parasites | 2,875 | 575 | 145 | 166 | 840 | | 4 | | 4,605 |
| Malaria | | | | | | | | | |
| Chemistry | 5,694 | 1,728 | 59 | 462 | 37 | 104 | 150 | | 8,234 |
| Blood | 5,671 | 742 | 1,446 | 186 | 16 | 13,389 | 0 | | 21,450 |
| Spinal Fluid | 0 | 0 | 311 | 0 | 0 | 36 | 5 | 0 | 352 |
| Urine | 0 | 0 | 860 | 0 | 0 | 0 | 0 | 0 | 860 |
| Water | 0 | 0 | 114 | 0 | 0 | 0 | 0 | 0 | 114 |
| Milk | 418 | 0 | 2,137 | 0 | 0 | 0 | 0 | 0 | 2,555 |
| Toxicology & Narcotics | 2,053 | 0 | 4,425 | 0 | 0 | 0 | 0 | 0 | 6,478 |
| Other | | | | | | | | | |
| Grand Totals | 845,957 | 440,172 | 364,739 | 112,486 | 76,691 | 58,776 | 19,727 | 11,700 | 1,930,248 |

TABLE XLVIII
SPECIMENS SUBMITTED FOR EXAMINATION BY FINDINGS

| EXAMINATION | Number of Specimens | | | | Total |
|--|------------------------------|--------------------------------|----------|--------|---------|
| | One or More Positive Finding | Positive for Finding Indicated | Negative | Unsat. | |
| Serology | | | | | |
| Syphilis | 99,153 | | 477,950 | 11,580 | 588,683 |
| Agglutination and Related Tests | 1,165 | | 9,019 | 378 | 10,562 |
| Typhoid | | 534 | | | |
| Typhus | | 497 | | | |
| Brucellosis | | 162 | | | |
| Tularemia | | 78 | | | |
| Other | | 29 | | | |
| Blood Typings (Rh) | | | | | 4,041 |
| Diagnostic Bacteriology | | | | | |
| Nose and Throat | 773 | | 6,216 | 45 | 7,034 |
| C. diphtheriae | | 526 | | | |
| Vincent's | | 250 | | | |
| Streptococci | | 82 | | | |
| H. pertussis | | 9 | | | |
| Tuberculosis | 3,227 | | 20,662 | 393 | 24,282 |
| Sputum | | 3,160 | 20,022 | 373 | |
| Urine | | 9 | 163 | 4 | |
| Gastric | | 9 | 156 | 3 | |
| Pleural Fluid | | 30 | 150 | 3 | |
| Other | | 19 | 171 | 10 | |
| Gonorrhea — Smears | 30,397 | | 37,678 | 847 | 68,922 |
| Intracellular Gram negative diplococci | | 8,537 | | | |
| Extracellular Gram negative diplococci | | 2,730 | | | |
| Trichomonads | | 1,278 | | | |
| Yeasts | | 594 | | | |
| Vincent's organisms | | 304 | | | |
| Many Pus Cells | | 27,089 | | | |
| Gonorrhea — Cultures | 4,169 | | 28,059 | 272 | 32,500 |
| Enteric Infections | 470 | | 19,987 | 117 | 20,574 |
| S. typhosa | | 74 | | | |
| Other Salmonellae | | 156 | | | |
| Shigella (Flexner and Sonne) | | 45 | | | |
| Blood Culture | 38 | | 341 | 6 | 423 |
| S. typhosa | | 3 | | | |
| Other Salmonellae | | 3 | | | |
| Streptococci | | 12 | | | |
| Other | | 20 | | | |
| Food Poisoning | 23 | | 65 | 1 | 89 |
| Staphylococci | | 10 | | | |
| Salmonellae | | 2 | | | |
| Other | | 12 | | | |

TABLE XLVIII (Continued)
SPECIMENS SUBMITTED FOR EXAMINATION BY FINDINGS

| EXAMINATION | Number of Specimens | | | | Total |
|---------------------------------|------------------------------|--------------------------------|----------|--------|---------|
| | One or More Positive Finding | Positive for Finding Indicated | Negative | Unsat. | |
| Diagnostic Bacteriology — Cont. | | | | | |
| Rabies, total | 273 | | 667 | 55 | 995 |
| Dog | | 215 | 510 | 32 | |
| Cat | | 22 | 105 | 11 | |
| Fox | | 25 | 1 | 5 | |
| Cow and Horse | | 4 | 11 | 0 | |
| Other | | 7 | 40 | 7 | |
| Miscellaneous | 2,899 | | 2,656 | 71 | 5,624 |
| Darkfield — T. pallidum | | 950 | 1,062 | 29 | |
| Chancroid — Ducrey's | | 35 | 78 | 2 | |
| Granuloma — Donovan Bodies | | 584 | 331 | 6 | |
| Gonococcus in Eye | | 54 | 295 | 13 | |
| Other Eye Cultures | | 14 | 1 | 0 | |
| Urine Culture | | 407 | 152 | 3 | |
| Spinal Fluid Culture | | 28 | 106 | 0 | |
| Pleural Fluid Culture | | 78 | 104 | 0 | |
| Other Fluids and Exudates | | 253 | 145 | 0 | |
| Mycological Examinations | | 46 | 269 | 7 | |
| Organisms for Identification | | 417 | 18 | 0 | |
| Other Examinations | | 33 | 95 | 11 | |
| Sanitary Bacteriology | | | | | |
| Dairy Products | | | | | 11,985 |
| Water, Drinking | | | | | 31,382 |
| Water, Pools and Beaches | | | | | 4,772 |
| Water, Pollution Surveys | | | | | 10,593 |
| Shellfish | | | | | 19 |
| Parasitology | | | | | |
| Intestinal Parasites | 27,646 | | 67,989 | 1,711 | |
| Hookworm | | 17,697 | | | |
| Ascaris | | 2,582 | | | |
| Enterobius | | 1,526 | | | |
| Trichiuris | | 473 | | | |
| Taeniae | | 34 | | | |
| Other Helminths | | 98 | | | |
| E. histolytica | | 67 | | | |
| Non-pathogenic amoebae | | 8,510 | | | |
| Flagellates | | 2,390 | | | |
| Other | | 7 | | | |
| Malaria | 14 | | 4,374 | 217 | 4,605 |
| P. Vivax | | 10 | | | |
| P. falciparum | | 3 | | | |
| Untyped | | 1 | | | |
| Chemistry | | | | | |
| Blood | | | | | 7,930 |
| Spinal Fluid | | | | | 9,054 |
| Urine | | | | | 178 |
| Water | | | | | 920 |
| Milk | | | | | 47 |
| Toxicology and Narcotics | | | | | 375 |
| Other | | | | | 623 |
| | | | | | 943,540 |

Information pertaining to specimens is given in Table XLVIII. Note that the major headings correspond with those in Table XLVII. The "Totals" indicate for example, that 588,683 blood specimens were submitted for the serological tests for syphilis (Table XLVIII) and that on these 1,263,991 examinations were performed (Table XLVII). In all 943,540 specimens were received and on these there was a total of 1,930,248 examinations. An average of approximately two tests per specimen was performed. This varied, however, up to as many as thirty or more on some specimens sent for detailed toxicological examination.

The positive findings are given in the first two columns of Table XLVIII. The first of these records the number of specimens on which any positive findings were reported; the second, gives specific findings for these same specimens. A stool sample, for example, is often found positive for hookworm, ascaris and other parasites. This is shown as one positive specimen in the first column, but in the second, each of the specific positive findings are counted. Under the categories Tuberculosis, Rabies and Miscellaneous, the totals are given first, then the different types of specimens, with findings, are listed. Where the results are quantitative, as in sanitary bacteriology and chemistry, only the total number of specimens is recorded.

The significance of public health laboratory work is clearly revealed in the tabulation of "positives" in Table XLVIII. Almost one hundred thousand (99,153) blood specimens submitted, had findings pointing toward possible syphilis. Undoubtedly these provided the basis for the diagnosis of a majority of the cases of syphilis reported to the Board of Health. Each of the 526 positive findings for diphtheriae, the 3,227 for *M. tuberculosis*, the positives for typhoid, rabies and various other conditions have high significance in clinical diagnosis and in public health control. The observations in sanitary bacteriology and chemistry though stated quantitatively are of no less significance.

Heretofore there has been no report on the activity of the service and supply departments. Without proper handling of glassware, reliable laboratory tests cannot be attained. There is even now, no record of the hundreds of thousands of pieces of glassware processed in the washrooms and sterilizing rooms of our laboratories. A record has been kept since 1941 however, of the volume of bacteriological media prepared for the Jacksonville laboratory (Table XLIX). This reflects the growth of the work in bacteriology only. Various diagnostic reagents and stains were prepared also—the total volume of these approximately equalling one-half of that of culture media. It is to be noted that the cost of media and diagnostic reagents is a major item in the supply budget for the Bureau of Laboratories. Obviously, without these, the laboratory could not function. Each additional test requires additional testing reagents and glassware, as well as more time of personnel. The major problem in the operation of the Bureau of Laboratories has been that work has increased more rapidly than available supplies and personnel.

TABLE XLVI
BACTERIOLOGICAL CULTURE MEDIA PREPARED IN JACKSONVILLE LABORATORY
1941 to 1949

| Year | Liters Culture Media Prepared (One liter approximately equals one quart) |
|------|---|
| 1941 | 1,592 |
| 1942 | 1,797 |
| 1943 | 2,184 |
| 1944 | 2,578 |
| 1945 | 3,283 |
| 1946 | 3,576 |
| 1947 | 4,093 |
| 1948 | 5,718 |

PERSONNEL

Doctor Roland B. Mitchell was selected late in the year to be the Head of the Department of Bacteriology at the School of Aviation Medicine, Randolph Field. We are honored in having the Assistant Director of our Bureau selected for such an important position. The loss of Doctor Mitchell is lessened only by the fact that, through his efforts, an excellent training program was developed. This brought to the Board of Health able young workers. Already they are prepared to carry substantial responsibility. The training program while productive, could and should be strengthened. There is need for a "Training Staff" and adequate help to free "Trainees" from the confining responsibility of routine diagnostic work.

LABORATORY QUARTERS AND EQUIPMENT

There has been little change in the quality of laboratory facilities. The Tampa laboratory still operates in an obsolete building with poor arrangement and inadequate equipment. The Orlando laboratory is currently housed in the hospital at the Orlando Air Base. Surplus buildings were purchased and have been moved to a site satisfactorily located in the City of Orlando which was donated to the Board of Health by the City of Orlando. Renovation is planned for early 1949. In all laboratories, the space and equipment was designed for only a fraction of the volume of work currently being performed. Florida must have nothing less than modern, well equipped laboratories.

COOPERATION WITH OTHER LABORATORIES

The plans for the educational and evaluation program referred to in the last Annual Report have been carried forward. Attention has been limited to the fields of serology, bacteriology and parasitology. The educational activity began with a series of meetings in January 1948, during which Mr. Ad Harris, Chief Serologist, V. D. Research Laboratory, was the guest speaker. Discussion was invited as to the advisability of the establishment for educational purposes of an active society of medical

technologists in Florida. This was accomplished. A State meeting was held in May. The scientific program was provided by the Bureau of Laboratories. Guest speakers included Doctor Reuben L. Kahn, University of Michigan and Doctors James Steele, Seward Miller, Martin Frobisher and Marion Brooke of the Public Health Service. The attendance was in excess of 200; the scientific sessions were generally regarded as highly informative. It was agreed that scientific programs were desired locally for the ensuing year. The Director of the Bureau of Laboratories was requested to assume responsibility for arranging these. Three meetings were held during the Fall. The guest speaker at one was Doctor James Patterson, Tampa. The program for another was provided by the bacteriology division of the State Board of Health and for the third, the guest speaker was Mr. Hilfred Bossak of the V. D. Research Laboratory, Staten Island. In all instances similar meetings were held in various regions of the State. The attendance has been satisfactory and interest sustained.

Short intensive refresher courses meeting for five evenings in one week have been arranged also. In Miami, there have been two such courses in parasitology, plus less extensive instruction in bacteriology. In Tampa there was a weekend session in parasitology. The technicians have been appreciative. All this instruction was arranged through the cooperation of the U. S. Public Health Service.

The third approach in the educational program has been through evaluations. These were undertaken in the field of serology beginning in October. Whole blood specimens collected from patients at the Rapid Treatment Center were utilized. These were submitted in lots of 12 at weekly intervals, for 4 weeks. The findings were assembled and evaluated. The observations were used as a basis for the conferences held during the two weeks of Mr. Bossak's visit in the State. With few exceptions, technical workers were at hand from the almost 100 laboratories which had participated in this first evaluation study. The findings clearly indicated the urgent need for appropriate steps to improve the quality of serologic practice in many laboratories in the State. It is recognized that this step is but the beginning of what must be a sustained program of evaluation, education and consultation.

State laboratories have profited by the voluntary cooperative program of evaluations carried out annually by the V. D. Research Laboratory of the Public Health Service. This has resulted in a progressive elevation of the quality of serologic service in state laboratories. In general these now operate at an admirably high level of performance. The State Laboratory is related to local laboratories as the Public Health Service is to the State laboratories. It has an opportunity—and a responsibility—in relation to all medical laboratories within the State. The objective is to aid in every practicable manner in making available to the physicians and people of the State, highly reliable laboratory service. The State laboratory must be able to accept this opportunity. A "Field Technical

Staff" for laboratory services is proposed. Three individuals, highly qualified technically and effective teachers are needed. The investment, it is believed, would lead to great improvements in services at a minimum cost.

OPPORTUNITIES AHEAD

The "Annual Report" provides an occasion for the review of services and a consideration of plans for the future. Despite the expansion in services there are outstanding opportunities in evidence. Knowledge is adequate, for example, for an increasing control of syphilis. Treatment is simplified and effective. The major problem is case finding. For this, a further extension of serological service is essential. This must have an associated program of education as to the interpretation of newer serologic tests. The number of "case finding" serologic examinations must be increased—and the findings on these tests must be interpreted in the light of advancing knowledge. The early radiological diagnosis of tuberculosis calls for increasingly sensitive tests for the presence of the causative organisms. Cultural methods require continuing evaluation—and even better procedures practicable for the public health laboratories must be sought. Despite the expansion in Sanitary Bacteriology, there are outstanding needs and opportunities here.

These are illustrative opportunities. There are numerous needs. Perhaps the greatest of all is for a more effective program designed to improve the quality of work in every medical laboratory in the State. The results of this will not be measured by an increase in number of tests. The effect will become evident only slowly. Laboratory tests, through such a program, progressively would become more reliable—and more valuable. The diagnoses, based on better evidence would be improved—the management of cases more effective. The State laboratory could thus contribute substantially to the progressive improvement of medical practice in the State. This is our major opportunity ahead.

FIELD TECHNICAL STAFF

L. L. PARKS, M.D., M.P.H., Director

The Field Technical Staff completed its second year of operation on December 31, 1948. The Staff consists of two Record Consultants, two Nurses, two Sanitarians, the Secretary and the Director. This staff, in addition to State and Federal funds received financial support and guidance from the Commonwealth Fund of New York. The Commonwealth Fund is making the financial support because of its interest in the training and education of health workers. The purpose of the Field Technical Staff is to give consultation service in the field or on the front lines where the health services are being rendered.

The members of this staff have had special training and experience in their respective fields. They can use their own past experiences in making recommendations to a county worker or they may base their suggestions upon successful experiences that have been observed in another county in the State. The staff acts as a medium of exchange of valuable experiences from county to county. The staff may act as a stimulus to the local health worker in preparing new programs or new ideas.

The staff has continued to work individually insofar as the visits to counties are made. Each member visits the county, usually at a pre-arranged date. Recommendations are made as indicated while in the county and these are reviewed later by the Director of the Field Technical Staff. At a later visit a review of the previous recommendations are made and in the majority of the counties, many of the recommendations have been found to have been carried out. One must realize that it takes time to get some suggestions into operation and because of the changing circumstances in the county, the recommendations of the staff may not always be practical. A review of the number of recommendations has been made and the table below indicates that many of the suggestions have been found practical by the county health directors and their staffs. This table shows the number of recommendations by the workers as is noted in our office records.

| Consultants | Number of Recommendations | Partially Followed | Followed | Not Followed | Unknown |
|------------------------|------------------------------|-----------------------|----------|-----------------|---------|
| Sanitation Consultants | 104 | 3 | 44 | 23 | 34 |
| R. N. Consultants | 267 | 18 | 158 | 25 | 66 |
| Record Consultants | 21 | 2 | 7 | 2 | 10 |
| Director | 50 | | 20 | | 30 |
| TOTAL | 442 | 23 | 229 | 50 | 140 |

52 per cent of the recommendations carried out appears to be rather low, but actually it is believed that this is not the true picture because the follow-up on the number of recommendations complied with has not been checked as completely as is desired. Minor suggestions made in the

field never appear in the official report of the individual consultant and some suggestions are often made in the field that are better if left out of the official report.

The length of the visit in a county varies from a few hours to a month in some counties. The following table gives a general summary of the wide coverages of the services of this staff:

VISITS MADE BY MEMBERS OF THE STAFF

| Visitor | Number Counties Visited | | Number of Visits | |
|------------------------|-------------------------|------|------------------|------|
| | 1947 | 1948 | 1947 | 1948 |
| Record Consultants | 50 | 36 | 72 | 53 |
| Nurses Consultants | 30 | 34 | 86 | 76 |
| Sanitation Consultants | 44 | 44 | 95 | 94 |
| Director | 35 | 27 | 48 | 40 |

It is the intentions of the Staff to make the county health workers feel that the visit to the County is not to check on the efficiency of each worker but to help them with his or her individual services in the Health Program.

The Record Consultant assisted the Health Director in preparing the A. P. H. A. Evaluation Schedule in six counties during the year. There were a total of eight counties that submitted this Evaluation study in the State. The purpose in helping the counties to prepare these reports was to encourage their using these reports to better visualize their own health problems and how they were meeting them in comparison with other counties of the United States.

The Record Consultants relieved the regular secretaries in four counties for one month during the year in order that the county health secretary could obtain a month's training at the Alachua Training Center in Gainesville. The training of the secretaries is another activity that has been aided financially by the Commonwealth Fund of New York. A relief record consultant from the Alachua Training Center relieved in two counties for one month while the regular secretaries were in training. In addition to this, the relief record consultant and our record consultants also did vacation relief work in four counties while the county secretaries were on their annual vacations. Because of the relief work, this did not allow as many counties to be visited in 1948 as were visited in 1947. By allowing the record consultants to do relief work it gave them an opportunity to get some practical experience and to rework some of the records in the county.

A summary of the visits shows that members of the Field Technical Staff made a total of 263 separate visits to the counties during the year. There was an average of 4.7 visits per county during the year by a member of the Field Technical Staff. A visit is not counted in this tabulation

unless at least one-half a day or more is spent in a county. There were five counties that were visited but the visit did not meet the above definition of a visit and is not counted in this report. Fifty-seven of the 62 counties with a health department were visited during the year by a member of the Field Technical Staff.

In addition to individual visits to the counties by the staff, twelve Regional District Meetings were held during the year. Six meetings were held in March and six in December. The various state workers of the State Board of Health took part in these meetings as well as some members of the Field Technical Staff. The purpose of the meetings in December was to demonstrate the use of the audiometer, Massachusetts vision test, incubators and their usefulness in the health program. The meetings in March stressed the coding of activities and the need of standardizing the work of the health workers in the various counties so that comparisons can be made among the counties in their accomplishments. The attendance averaged 40 to 45 health workers per meeting. The plan of meeting in different counties from time to time gives the health workers an opportunity to visit their neighboring counties and observe how their neighbors meet their health problems. The purpose of the meetings was to assist the individual health worker.

It is interesting to note that some of the Pediatricians in the Southern part of the State heard of the district meetings after it was too late to attend and expressed their regret that we did not invite them to these meetings, especially the meetings on instructions on how to use the incubators and the other apparatuses. We felt this was a compliment to our services and regret that we did not even think to invite them as the meetings were primarily for public health workers.

The Staff often acts as a liaison officer in coordinating the work in the State with that of the county. If complaints or suggestions are obtained from the county worker they are discussed with the State workers and in most instances results in a correction of the complaint.

It is our opinion that we do not spend as much time as we should in the counties because of lack of sufficient number of staff members. In general, our staff members have been welcomed at anytime we visited the counties and they seem to appreciate the assistance that we want to give them.

DIVISION OF HEALTH INFORMATION

ELIZABETH REED, Acting Director
JESS H. WHEELER, In Temporary Charge

During the year 1948, Mr. Robert Carter, Director of the Division, was still on leave of absence. Miss Elizabeth Reed, Acting Director, obtained an educational leave in September to attend Columbia University, New York. In that same month Mr. Jess H. Wheeler was employed and placed in temporary charge of the Division.

A Negro health educator was assigned to the Division in March and for a time worked out of the state office, visiting communities needing aid in their Negro health programs. In July he was loaned to the Jackson County Health Department, Marianna, where he has been carrying on a Negro health program. Jackson County was selected because no efforts had been made before to initiate a Negro health program there.

With the acquisition of audiometers for each county health department by the State Board of Health, a health education consultant was loaned to Marion County for nine months. There she carried on a hearing conservation program and assisted in coordinating other health activities in that county. Upon her return to the Division, she has acted as a state consultant in conservation of hearing and other health education programs.

HEALTH EDUCATION MATERIALS

PAMPHLETS

The stock of pamphlets and posters was completely revised. Sample copies of all available materials from practically all known sources of health education materials were solicited and the best ones were ordered for the pamphlet supply. Newer and better literature is now being distributed.

The Division also revised and published several new pamphlets: "Undulant Fever", "Tetanus", "Typhus Fever", "A Mad Dog . . .", and a pamphlet on food poisoning.

To let the county health departments and interested persons know of the materials available, a catalog was prepared and distributed. As a result, requests for materials have greatly increased. Effort has been made to fill all requests promptly and completely and much improvement resulted in this vital service of Health Information. There could be greater improvement if more funds and personnel were made available, so that all requests, large and small, could be filled completely.

POSTERS

Receiving many requests from county health officers for a "small set of posters listing the basic functions of a health department", this Division

prepared a series of eight posters. Showing the major points of a successful public health program, they were colorful and clear enough to be seen from the back of a room. These were bound together at the top and placed on an easel to facilitate handling.

EXHIBITS

Six exhibits for use at fairs and large meetings were designed and constructed by a commercial artist on the subjects child health, hookworm, maternity care, maternal and child health, nutrition, and venereal diseases. Show card color and enlarged black and white photographs were used throughout on panels of upson board. To facilitate shipping and handling, cases of wood were also constructed to enclose the exhibits.

BLOTTERS

To encourage the interest of Florida physicians in the public health program, a series of blotters was designed. A blotter bearing a timely message and the current month's calendar is now being mailed to every physician in the state. DR. S. Q. LAPIUS SAYS is the central motif. Subjects during 1948 included the mass x-ray surveys, the industrial hygiene program, need for local health units, cancer, treatment of venereal diseases, immunization, the doctor's "shingle", and the State Board of Health Library.

POSTAGE METER ADS

A series of postage meter ads was designed for use in the postage machines operated by the State Board of Health and the laboratories in Jacksonville, Miami, and Tampa. The messages on the ads were:

- "Good Health Brings Wealth"
- "Florida Points the Way to Better Health"
- "County Health Departments Guard Your Health"
- "Healthy Children Make Good Students"
- "Why Hesitate? Have Your Physical Exam NOW!"

ART WORK

The staff artist contributed to the effectiveness of the Division's educational projects by making the illustrations or preparing the layouts and designs. These included speakers aids for tuberculosis groups, the tuberculosis pamphlet, "How You Can Save Florida \$38,000,000", the personnel booklet, "You Are the State Board of Health", the postage meter machine ads, the posters showing the functions of a county health department, and the monthly issues of FLORIDA HEALTH NOTES. In connection with the new exhibits the staff artist, selecting photos and reference materials, planned layouts with the display artist employed.

Total activities included: posters—63; signs—50; cartoons and illustrations—86; cover designs—12; letterheads—2; graphs and charts—36; maps—5; postage meter ads—9; exhibits—10; and blotters—8.

RADIO

A new series of thirteen recordings on various phases of health was prepared. These were distributed to county health departments and ra-

dio stations. Six sets of dramas and documentaries by well-known radio persons on the subject of venereal diseases were received from the U. S. Public Health Service. They were first offered to county health departments considered to need them most; now they are being circulated to other counties as requested.

PUBLICITY AND PHOTOGRAPHY

Publicity and photographic activities continued to expand in 1948. Weekly statewide news releases, covering current public health problems and programs, were sent to all Florida news services. These received excellent coverage as did "spot" news items. A number of national publications were kept "posted" as to Florida's public health program, while special articles and pictures were prepared for state and national publication.

Publicity assistance was given to the promotion of the Florida Food-handler School Program and the tuberculosis mass x-ray surveys. The publicity was handled for the Florida Public Health Association, Anti-Mosquito Association, Southeastern States Cancer Seminar, and Venereal Disease Seminar. Meetings of these groups received widespread publicity as a result.

Black and white photographs on all phases of public health were made for magazines, newspapers, local health departments, exhibits and FLORIDA HEALTH NOTES.

Copy for three issues of HEALTH NOTES was prepared by the press secretary.

FLORIDA HEALTH NOTES

A major activity of the Division of Health Information is the publication of FLORIDA HEALTH NOTES, official monthly publication of the State Board of Health. It is designed primarily for informed lay citizens and for use in schools and public health work. Effort was made during 1948 to make the bulletin and its subjects more attractive and interesting. Subjects covered during the year were: food handling, venereal disease control, industrial hygiene, cancer control, mosquito control, narcotics, diabetes, sight conservation, vital statistics, county health departments, child health services, and tuberculosis.

HEALTH NOTES' mailing list was revised during the year and now includes approximately 10,000 names. It was interesting to note the high rate of return on the mailing list cards sent out. The Division was overwhelmed by the knowledge that almost everyone on the mailing list desired to remain on it and a large number expressed their appreciation and offered suggestions for improvement.

SPECIAL PROJECTS

A personnel booklet entitled "You Are the State Board of Health" was an outstanding project of the Division during the year. Copy for the booklet was prepared by the Division and the illustrations were drawn

by the staff artist. Purpose of the booklet is to tell State Board of Health employees about its organization and how each employee is a responsible member in carrying out the public health program.

A pamphlet entitled "How You Can Save Florida \$38,000,000" was prepared by this Division for the Bureau of Tuberculosis Control, the State Tuberculosis Board, and the Florida Tuberculosis and Health Association. This pamphlet aims to advise legislators and other interested persons of the serious need for more tuberculosis sanatoria and hospital beds in the state.

A special project at the end of 1948 included the formulation of plans with the Jacksonville Dental Society for a dental health day celebration in Jacksonville, February 7, 1949. This will be our first day devoted exclusively to dental health. The Division is participating in the overall planning committee, publicity committee, and program planning committee. Newspaper publicity, radio spot announcements, and the Mayor's proclamation have been prepared and are ready for release. A leaflet "Delay Means Decay" inviting Jacksonville citizens to attend Dental Health Day has been published and will be enclosed in the city utility bills of January. Plans were also made for a dental health poster contest among the school children. The valuable prizes donated by the Jacksonville Dental Society will be awarded on Dental Health Day.

FILM LIBRARY

Circulation of films during 1948 saw an increase of over 100 per cent above the 1947 figure. There was also a sizeable increase in number of showings of each film shipped and a corresponding increase in total number of persons viewing the films. The figures are as follows:

| | |
|--|---------|
| Total number of films shipped | 2,892 |
| Total number of times shown | 6,773 |
| Total number of persons in audience..... | 815,590 |

The adoption of a new card system in booking films and the cataloging of each individual print was very helpful. The two systems resulted in a considerable increase in speed and efficiency in distribution of films.

The film library works closely with the Bureau of Tuberculosis in the distribution of 35mm. x-ray trailers and 16mm. education films used during x-ray surveys.

Through an arrangement with the Florida Tuberculosis and Health Association all films belonging to that organization were taken over by the Film Library on a one-year loan basis. This arrangement has proven highly satisfactory and will continue.

It has been very gratifying to note the steady increase in the use of the films by schools. More teachers and health educators seem to be becoming aware of the type of material available to them from the Film Library.

Many new films were added during the year. Among these were excellent films on sex education and mental hygiene. A sizeable amount of new equipment was obtained which included, in addition to projectors and screens, two film racks for storing of films.

CO-ORDINATED FOOD HANDLERS' TRAINING PROGRAM

E. RUSSELL JACKSON, Director

The Co-Ordinated Food Handlers' Training program conducted by the State Board of Health in cooperation with the Florida Restaurant Association and State Hotel Commission has made encouraging progress. Becoming a reality in November, 1947, the program became established in 1948 as a public health service, through education, to increase sanitation efficiency of food handling personnel, to reduce hazards to health and to safeguard the public. Thus was gained a better control of places and people of the food service industry by instilling in their minds sanitation thinking and a consciousness of the responsibility they have.

Only three schools were conducted the first two months of operation in 1947. Total attendance at the sessions was 861 and 260 certificates were issued. A special workshop was also held at the Florida State University, which drew more than 200 people.

After the new year, the program concentrated on regular monthly scheduling of schools throughout the state. The courses were set up on a three-session basis for a total of six hours, presented in a period of three days. All school sessions were usually repeated each day to make attendance as convenient as possible to operators and employees.

JANUARY-JUNE, 1948

33 Food handlers programs conducted in 16 Florida communities.
18,769 Total attendance.
5,370.7 Average attendance at three-day sessions.
1,306.0 Average attendance at two-day sessions*.

*Although most of the schools were conducted on the three-day session basis, exception was made to this policy in three communities and the instruction unit was reduced to two sessions in a two-day period.

5,637 Individual food handlers certificates issued.

The operation of this program was suspended for the summer months. However, two courses were given school lunchroom personnel in Marion and Franklin counties in August. The second food handlers school schedule began in September and continued through December.

SEPTEMBER-DECEMBER, 1948

| | |
|---------|---|
| 12 | Food handlers programs conducted in 11 counties and cities |
| 9,151 | Total attendance |
| 3,069.9 | Average attendance at sessions |
| 2,408 | Individual food handlers certificates issued |
| 346 | Special certificates awarded establishments with 80 percent or better attendance at the schools |

As a result of the food handlers schools held, 1948 saw the establishment of permanent food handler training programs in Polk, Dade, and Pinellas counties. It is anticipated that similar programs under health department jurisdiction will be set up in Escambia, Leon, Bay, Orange, Palm Beach and Volusia counties during 1949. Existing permanent programs have certified 1,697 persons.

Among the evident results of the food handler training programs, it must be noted that new equipment for food protection has been installed in a number of establishments, improved utensil sterilization methods employed, more efficient control of pests and a general awareness of health hazards in food service.

The director of the Food Handlers School program participated as a panel member of the food handlers training clinic of the First National Sanitation Clinic held June 21-25 at Ann Arbor, Michigan. This was a significant meeting of public health and industry to discuss mutual problems and recommendations for solving them. They used as their basis for recommended solutions the best existing experience in the country today.

TABLE L
FOOD HANDLERS TRAINING PROGRAM PROGRESS
November 18, 1947 — December 31, 1948

| A. STATE PROGRAM | Three Session Schools | Two Session Schools | Special Classes | Totals |
|--|-----------------------------|---------------------------|--------------------|--------|
| Number of Food Handlers programs conducted | 40 | 7 | 5 | 52 |
| Total attendance — all sessions | 25,762 | 3,309 | 135 | 29,206 |
| Average session attendance | 8,587.3 | 1,654.9 | 135.0 | ..... |
| Food Handlers certificates issued | 7,011 | 1,294 | None | 8,305 |
| Percentage — average attendance certified | 81.6 | 78.2 | ..... | ..... |
| Establishment certificates | 346* | ..... | ..... | 346* |
| Number counties food handlers programs held | 20 | 3 | 5 | 28 |
| Number communities food handlers programs held | 28 | 5 | 3 | 36 |

*Reports from counties complete for second 1948 schedule only.

| B. COUNTY PROGRAMS | Polk | Dade | Pinellas | Totals |
|---------------------------------------|-------|-------|----------|---------|
| Number of Food Handlers programs held | 11 | 12 | ..... | 23 |
| Total attendance — all sessions | 658 | 2,858 | 446 | 3,972 |
| Average session attendance | 219.3 | 956.0 | 446.0* | 1,621.3 |
| Food handlers certificates issued | 308 | 943 | 446 | 1,697 |
| Establishment certificates issued | 67 | 66 | None | 133 |

*This course consists of one two-hour session.

THE LIBRARY

LORA-FRANCES DAVIS, Librarian

Circulation statistics for the past three years show the trend toward greater library usage:

| DATE | BOOKS | PERIODICALS | PAMPHLETS & REPRINTS | TOTAL |
|------|-------|-------------|-------------------------|-------|
| 1946 | 908 | 682 | 520 | 2,110 |
| 1947 | 1,229 | 1,920 | 1,011 | 4,160 |
| 1948 | 1,287 | 2,604 | 1,238 | 5,329 |

Statistics cannot show the number of times these items were actually read or used. Some were loaned indefinitely to departments and bureaus for constant usage, others for short terms to be circulated among the entire staff.

No stringent efforts were made to increase circulation, due to reduction in the library's staff. However, borrowers increased from 247 in 1947 to 436 in 1948. Practicing physicians were sent new book lists in the spring, and in December they received blotters calling their attention to the library and its services. A new booklet was designed for public health workers with selected titles for nurses, sanitarians, health officers, and laboratory workers. It was distributed at the Florida Public Health Association meeting and later by mail. The routing of a selected group of books to local executive secretaries of the tuberculosis associations which began in 1947 was completed in November, 1948.

Reference questions answered totaled 2,636, which included numerous bibliographies for scientific papers.

A representative collection of books was purchased with cancer funds for the library and for indefinite loan to the Duval County Medical Center's tumor clinic. Numerous purchases were made in the fields of mental hygiene, obstetrics, gynecology, and pediatrics. Twenty-two new subscriptions to periodicals represent every phase of the State Board of Health's expanding interests. Among these were subscriptions to three sections of the new international abstracting service, *Excerpta Medica*: "Pediatrics", "Obstetrics and Gynecology", "Medical Microbiology and Hygiene".

As always the Florida Medical Association presented the library with back issues of the periodicals it receives through exchange, and this year ten new titles have been added. Local physicians and their families presented several hundreds of volumes.

Inventory of the journals was begun, and book pockets and cards were added in the process. Because of the effort to have the majority of the

journals bound by July, 1949, this inventory was essential. Through the Medical Library Exchange many missing issues have been obtained at only postage cost.

Eight volumes of the *Journal of Pediatrics* were purchased to complete holdings to date.

This year the Army Medical Library began a new service which has proven its worth to our borrowers. Heretofore we could borrow journals by paying express rates both ways or by obtaining photostats at a cost of fifty cents for each ten pages. While both of these methods are still available, we may also secure microfilm at no cost for a loan of three months. In the six months of this service, the library has borrowed fifty-seven microfilms. If the library had a microfilm reader, many more patrons would enjoy this service.

The library is also indebted to the Army Medical Library for the loan of books; it is especially indebted to the history of Medicine Division in Cleveland for the loan of invaluable books published in the early fifteen and sixteen hundreds. Services and loans from medical college libraries and the Jacksonville Public Library have increased the library's usefulness.

In 1948 little progress was made on our major problem: better library lighting. Both the City of Jacksonville's engineers and our own Industrial Hygiene engineer submitted surveys showing the library lighting to vary generally from three to seven foot candles. The Florida Industrial Commission recommends thirty foot candles.

BUREAU OF VITAL STATISTICS

—EVERETT H. WILLIAMS, JR., Director

This report contains a brief summary of the statistical data tabulated for the year 1948 and covers the activities of the Bureau of Vital Statistics. The 1948 annual statistical report of this Bureau will be published separately as a supplement to this report and will contain more detailed statistical data regarding births, deaths, marriages, and divorces. Previous issues of this annual statistical report may be obtained upon request to the Bureau of Vital Statistics.

POPULATION

The estimated population as of July 1, 1948, for the state of Florida is 2,477,200. This consists of 1,897,100 white and 580,100 colored. This population estimate is based on the assumption that the annual increase in population since 1945 has been the same as was the annual increase between the Federal Census of 1940 and the State Census of 1945.

BIRTHS

There were 59,685 resident births for Florida during 1948 and the rate was 24.1 per thousand population. This rate was slightly lower than the rate of 25.0 for the previous year, but it was the second highest resident rate on record in this state. The white birth rate was 22.8 and the colored rate was 28.2 per thousand population. Table LI shows the number of resident births and birth rates for this state for the period 1931-1948.

TABLE LI
RESIDENT BIRTHS AND DEATHS WITH RATES
(PER 1,000 POPULATION) FLORIDA, 1931-1948.

| YEARS | BIRTHS | BIRTH RATE | DEATHS | DEATH RATE |
|-------|--------|------------|--------|------------|
| 1948 | 59,685 | 24.1 | 24,505 | 9.9 |
| 1947 | 60,201 | 25.0 | 24,150 | 10.0 |
| 1946 | 54,347 | 23.3 | 22,750 | 9.7 |
| 1945 | 48,839 | 21.5 | 22,594 | 10.0 |
| 1944 | 49,186 | 22.4 | 23,251 | 10.6 |
| 1943 | 46,763 | 22.0 | 23,213 | 10.9 |
| 1942 | 40,675 | 19.8 | 21,144 | 10.3 |
| 1941 | 37,351 | 18.8 | 21,438 | 10.8 |
| 1940 | 33,696 | 17.6 | 21,458 | 11.2 |
| 1939 | 32,437 | 17.5 | 20,209 | 10.9 |
| 1938 | 31,101 | 17.3 | 19,949 | 11.1 |
| 1937 | 29,529 | 17.0 | 19,825 | 11.4 |
| 1936 | 28,116 | 16.7 | 20,050 | 11.9 |
| 1935 | 28,058 | 17.3 | 19,059 | 11.8 |
| 1934 | 26,722 | 16.9 | 19,518 | 12.3 |
| 1933 | 25,647 | 16.5 | 18,112 | 11.7 |
| 1932 | 27,242 | 17.8 | 17,721 | 11.6 |
| 1931 | 26,789 | 17.8 | 17,291 | 11.5 |

TABLE III
RESIDENT DEATHS BY IMPORTANT CAUSES, AND DEATH RATES (PER 100,000 POPULATION)
BY COLOR, FLORIDA, 1947 AND 1948

| CAUSE OF DEATH | DEATHS | | | DEATHS | | | DEATH RATE | | |
|--|--------|--------|---------|--------|--------|---------|------------|-------|---------|
| | 1947 | | | 1948 | | | 1947 | | |
| | Total | White | Colored | Total | White | Colored | Total | White | Colored |
| TOTAL DEATHS | 24,150 | 17,323 | 6,827 | 24,505 | 17,601 | 6,904 | 10.0* | 9.4* | 11.9* |
| Typhoid Fever (1) | 8 | 2 | 6 | 4 | 1 | 3 | 0.3 | 0.1 | 1.0 |
| Paratyphoid Fever (2) | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Undulant Fever (3) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cerebrospinal Meningitis (6) | 20 | 13 | 7 | 13 | 4 | 9 | 0.8 | 0.7 | 1.2 |
| Scarlet Fever (8) | 30 | 0 | 16 | 21 | 1 | 12 | 1.2 | 0.8 | 2.6 |
| Whooping Cough (9) | 17 | 13 | 4 | 13 | 9 | 4 | 0.7 | 0.7 | 0.7 |
| Diphtheria (10) | 754 | 367 | 387 | 704 | 330 | 374 | 31.3 | 20.0 | 67.6 |
| Tuberculosis of Respiratory System (13) | 42 | 20 | 22 | 29 | 13 | 16 | 1.7 | 1.1 | 3.8 |
| Tuberculosis, All Other Forms (14-22) | 11 | 5 | 6 | 14 | 2 | 12 | 0.5 | 0.3 | 1.0 |
| Septicemia & Purulent Infection, Nonpuerperal (24) | 2 | 1 | 1 | 2 | 1 | 1 | 0.1 | 0.1 | 0.2 |
| Gonococcus Infection (25) | 12 | 0 | 0 | 18 | 1 | 17 | 0 | 0 | 0 |
| Typhoid (26A) | 12 | 5 | 7 | 18 | 11 | 7 | 0.5 | 0.3 | 1.2 |
| Dysentery (27) | 7 | 2 | 5 | 11 | 3 | 8 | 0.3 | 0.1 | 0.9 |
| Malaria (28) | 256 | 84 | 172 | 245 | 88 | 157 | 10.6 | 4.6 | 30.1 |
| Syphilis (30) | 175 | 83 | 92 | 120 | 53 | 67 | 7.3 | 4.5 | 16.1 |
| Influenza (33) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Smallpox (34) | 4 | 4 | 0 | 7 | 5 | 2 | 0.2 | 0.2 | 0 |
| Measles (35) | 6 | 6 | 0 | 19 | 18 | 1 | 0.2 | 0.3 | 0 |
| Acute Poliomyelitis (36) | 8 | 8 | 0 | 2 | 2 | 0 | 0.3 | 0.4 | 0 |
| Acute Infectious Encephalitis (37) | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 |
| Rabies (38B) | 7 | 5 | 2 | 8 | 6 | 2 | 0.3 | 0.3 | 0.3 |
| Typhus Fever (39) | 91 | 38 | 53 | 105 | 51 | 54 | 3.8 | 2.1 | 9.3 |
| Other Infectious & Parasitic Diseases (3, 4, 7, 11, 12, 23, 26B, 29, 31, 32, 38A, C, D, E, F, 40-44) | 2,986 | 2,232 | 454 | 2,969 | 2,471 | 498 | 119.8 | 121.7 | 130.3 |
| Cancer, All Forms (45-55) | 92 | 62 | 30 | 89 | 47 | 42 | 3.8 | 3.4 | 5.2 |
| Nonmalignant & Unspecified Tumors (56, 57) | 15 | 10 | 5 | 18 | 6 | 12 | 0.6 | 0.5 | 0.9 |
| Acute Rheumatic Fever (58) | | | | | | | | | |

| | | | | | | | | | |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Diabetes Mellitus (61) | 458 | 375 | 83 | 496 | 333 | 113 | 19.0 | 20.4 | 14.5 |
| Pellagra (69) | 13 | 9 | 4 | 26 | 18 | 8 | 0.5 | 0.5 | 0.7 |
| Leukemias & Leukemias (74) | 100 | 89 | 11 | 117 | 109 | 8 | 4.2 | 4.9 | 1.9 |
| Alcoholism (77) | 40 | 25 | 15 | 35 | 29 | 6 | 1.7 | 1.4 | 2.6 |
| Cerebral Hemorrhage, Embolism, Thrombosis & Softening (83) | 2,435 | 1,705 | 780 | 2,442 | 1,621 | 821 | 103.2 | 92.9 | 136.3 |
| Other Diseases of the Nervous System (80-82, 84-89) | 244 | 164 | 80 | 215 | 149 | 66 | 10.1 | 8.9 | 14.0 |
| Diseases of the Heart (90-95) | 6,338 | 5,232 | 1,206 | 6,903 | 5,535 | 1,368 | 267.5 | 285.2 | 210.7 |
| Other Diseases of the Arteries (96-99) | 396 | 327 | 69 | 468 | 380 | 88 | 16.5 | 17.8 | 12.1 |
| Other Diseases of the Circulatory System (100-103) | 65 | 36 | 29 | 88 | 58 | 30 | 2.7 | 2.0 | 5.1 |
| Pneumonia (107-109) | 818 | 474 | 344 | 748 | 472 | 276 | 34.0 | 25.8 | 60.1 |
| Other Respiratory Diseases (104-106, 110-114) | 312 | 236 | 76 | 277 | 205 | 72 | 13.0 | 12.9 | 13.3 |
| Diarrhea & Enteritis, under 2 years (119) | 94 | 62 | 32 | 96 | 56 | 40 | 3.9 | 3.4 | 5.6 |
| Diarrhea & Enteritis, 2 years and over (120) | 40 | 27 | 13 | 38 | 23 | 15 | 1.7 | 1.5 | 2.3 |
| Appendicitis (121) | 109 | 63 | 46 | 80 | 48 | 32 | 4.5 | 3.4 | 8.0 |
| Hernia, Intestinal Obstruction (122) | 251 | 175 | 76 | 182 | 117 | 65 | 10.4 | 9.5 | 13.3 |
| Cirrhosis of the Liver (124) | 250 | 201 | 49 | 278 | 236 | 42 | 10.4 | 11.0 | 8.6 |
| Other Diseases of Digestive System (115-118, 123, 125-129) | 418 | 281 | 137 | 448 | 305 | 143 | 17.4 | 15.3 | 23.9 |
| Nephritis (130-132) | 1,583 | 1,004 | 579 | 1,487 | 947 | 540 | 65.8 | 54.7 | 101.2 |
| Other Diseases of Genito-Urinary System (133-139) | 310 | 215 | 95 | 284 | 188 | 96 | 12.9 | 11.7 | 16.6 |
| Puerperal Infection (140, 147) | 30 | 15 | 15 | 24 | 13 | 11 | 1.2 | 0.8 | 2.6 |
| Other Diseases of Pregnancy, Childbirth & Puerperium (141-146, 148-150) | 105 | 44 | 61 | 91 | 33 | 58 | 4.4 | 2.4 | 10.7 |
| Congenital Malformations (157) | 308 | 251 | 57 | 292 | 242 | 50 | 12.8 | 13.7 | 10.0 |
| Premature Birth (159) | 857 | 627 | 230 | 782 | 525 | 257 | 35.6 | 34.2 | 40.2 |
| Other Diseases peculiar to first year of life (158, 160, 161) | 475 | 328 | 147 | 426 | 294 | 132 | 19.7 | 17.9 | 25.7 |
| Senility (162) | 262 | 182 | 80 | 230 | 156 | 74 | 10.9 | 9.9 | 14.0 |
| Suicide (163-164) | 291 | 280 | 11 | 317 | 297 | 20 | 12.1 | 15.3 | 1.9 |
| Homicide (165-168) | 381 | 82 | 299 | 370 | 93 | 277 | 15.8 | 4.5 | 52.2 |
| Motor Vehicle Accidents (170) | 729 | 561 | 168 | 668 | 516 | 152 | 30.3 | 30.6 | 29.4 |
| All other Accidents (169, 171-195) | 1,189 | 818 | 371 | 1,254 | 902 | 352 | 49.4 | 44.6 | 64.8 |
| All other defined causes (59, 60, 62-68, 70-73, 75, 76, 78, 79, 151-156, 196-198) | 206 | 144 | 62 | 248 | 171 | 77 | 8.6 | 7.8 | 10.8 |
| Ill-defined & unknown causes (199, 200) | 647 | 314 | 333 | 680 | 344 | 336 | 26.9 | 17.1 | 58.2 |

* Rate per 1,000 Population

DEATHS

In 1948, there were 24,505 deaths to residents of this state and the death rate was 9.9 per thousand population. This is slightly lower than the resident death rate of 10.0 for the previous year. The white death rate was 9.3 and was 22% lower than the colored rate of 11.9 per thousand population. Table LI shows the trend of resident death rates in Florida for the years 1931-1948.

Heart disease continued to be the leading cause of death and accounted for 28% of all deaths. Other leading causes of death were cancer, cerebral hemorrhage, accidents, and nephritis in that order. It is interesting to note that four of the five leading causes of death are the so-called old age diseases. Since the average length of life is gradually increasing, we can expect the percentage of persons in the older age groups to also increase. Table LII shows a comparison between the last two years of the important causes of death. The trend of resident death rates for certain causes for the period 1933-1948 is shown in Table LIII.

MARRIAGES AND DIVORCES

There were 21,510 marriages performed in Florida during the year 1948. This represents a ten per cent decrease from the preceding year. Divorces decreased fourteen per cent as 17,805 were granted during the year. The ratio of marriages to divorces was 1.21 as compared to 1.16 for 1947.

ACTIVITIES

During the past year the local registration system for the collection of data on births and deaths was revised in twelve counties. This makes a total of sixty-one out of the sixty-seven counties which now have the collection of vital statistics data centralized in the county health department. This system is designed for more efficient registration of births and deaths and makes data more readily available to the county health department for the planning and the evaluation of its health program. Marion County is now the only county having an accredited health unit which has not revised its registration system. It is hoped that the health department in this county will take over the registration of births and deaths in the near future.

There were 1,126 adoptive birth certificates placed on file during 1948 as compared with 860 for the previous year. There were also 2,836 delayed birth certificates filed. A delayed birth certificate is the type which must be used if a certificate was not filed before the person's fourth birthday, and it must be accompanied by sufficient evidence to prove the date and place of birth and the parent's names. 1,170 of these delayed birth certificates were filed with the various County Judges and forwarded by them to this office. 70,364 requests were received for searching the records and 64,739 certified copies of records were issued.

TABLE LIII
RESIDENT DEATHS AND DEATH RATES PER 100,000 POPULATION, FLORIDA, 1933-1948

| YEAR | INFANT MORTALITY | | MATERNAL MORTALITY | | TYPHOID | | MALARIA | | SYPHILIS | | TUBERCULOSIS | | DIPHTHERIA | | DIARRHEA AND ENTERITIS | | CANCER | | HEART DISEASE | |
|------|------------------|--------|--------------------|--------|---------|------|---------|------|----------|------|--------------|------|------------|------|------------------------|------|--------|-------|---------------|-------|
| | Deaths | Rate** | Deaths | Rate** | Deaths | Rate | Deaths | Rate | Deaths | Rate | Deaths | Rate | Deaths | Rate | Deaths | Rate | Deaths | Rate | Deaths | Rate |
| 1948 | 2,088 | 34.9 | 115 | 1.9 | 4 | 0.2 | 11 | 0.4 | 245 | 9.9 | 733 | 29.6 | 13 | 0.5 | 134 | 5.4 | 2,969 | 119.9 | 6,903 | 278.7 |
| 1947 | 2,273 | 37.8 | 135 | 2.2 | 8 | 0.3 | 7 | 0.3 | 256 | 10.6 | 796 | 33.1 | 17 | 0.7 | 134 | 5.6 | 2,686 | 111.6 | 6,438 | 267.5 |
| 1946 | 2,092 | 38.5 | 156 | 2.9 | 12 | 0.5 | 18 | 0.8 | 277 | 11.9 | 701 | 30.0 | 30 | 1.3 | 137 | 5.9 | 2,527 | 108.1 | 5,731 | 245.8 |
| 1945 | 2,092 | 42.8 | 142 | 2.9 | 14 | 0.6 | 21 | 0.9 | 296 | 13.1 | 708 | 31.2 | 30 | 1.3 | 247 | 10.9 | 2,249 | 99.2 | 5,330 | 235.2 |
| 1944 | 2,206 | 44.9 | 160 | 3.3 | 14 | 0.6 | 34 | 1.5 | 355 | 16.2 | 789 | 35.9 | 41 | 1.9 | 233 | 10.6 | 2,157 | 98.2 | 5,265 | 239.7 |
| 1943 | 2,164 | 46.3 | 166 | 3.5 | 17 | 0.8 | 41 | 1.9 | 399 | 18.8 | 842 | 39.6 | 24 | 1.1 | 246 | 11.6 | 2,032 | 95.6 | 4,998 | 235.1 |
| 1942 | 1,933 | 47.5 | 163 | 4.0 | 28 | 1.4 | 48 | 2.3 | 373 | 18.1 | 867 | 42.2 | 28 | 1.4 | 230 | 11.2 | 1,875 | 91.2 | 4,731 | 230.1 |
| 1941 | 1,965 | 52.6 | 226 | 6.1 | 24 | 1.2 | 82 | 4.1 | 499 | 25.1 | 927 | 46.7 | 23 | 1.2 | 273 | 13.8 | 1,897 | 95.5 | 4,755 | 239.5 |
| 1940 | 1,812 | 53.8 | 215 | 6.4 | 20 | 1.0 | 102 | 5.3 | 444 | 23.2 | 973 | 50.8 | 27 | 1.4 | 219 | 11.4 | 1,743 | 91.0 | 4,745 | 247.8 |
| 1939 | 1,820 | 56.1 | 208 | 6.4 | 27 | 1.5 | 112 | 6.0 | 447 | 24.1 | 931 | 50.2 | 33 | 1.8 | 304 | 16.4 | 1,656 | 89.3 | 4,062 | 219.1 |
| 1938 | 1,811 | 58.2 | 237 | 7.6 | 44 | 2.5 | 166 | 9.2 | 444 | 24.7 | 1,012 | 56.4 | 33 | 1.8 | 345 | 19.2 | 1,483 | 82.6 | 3,872 | 215.7 |
| 1937 | 1,752 | 59.3 | 197 | 6.7 | 43 | 2.5 | 209 | 12.0 | 458 | 26.4 | 987 | 56.8 | 55 | 3.2 | 278 | 16.0 | 1,577 | 90.8 | 3,529 | 203.2 |
| 1936 | 1,660 | 59.0 | 222 | 7.9 | 39 | 2.3 | 349 | 20.8 | 394 | 23.5 | 925 | 55.1 | 57 | 3.4 | 261 | 15.5 | 1,419 | 84.5 | 3,483 | 207.5 |
| 1935 | 1,728 | 61.6 | 242 | 8.6 | 57 | 3.5 | 327 | 20.2 | 419 | 25.9 | 908 | 56.0 | 57 | 3.5 | 326 | 20.1 | 1,389 | 85.7 | 3,074 | 189.7 |
| 1934 | 1,821 | 68.1 | 222 | 8.3 | 47 | 3.0 | 440 | 27.7 | 484 | 30.5 | 961 | 60.6 | 81 | 5.1 | 334 | 21.1 | 1,276 | 80.5 | 3,272 | 206.4 |
| 1933 | 1,616 | 63.0 | 284 | 11.1 | 61 | 3.9 | 364 | 23.4 | 450 | 29.0 | 1,045 | 67.2 | 55 | 3.5 | 228 | 14.7 | 1,251 | 80.5 | 2,851 | 183.5 |

** Rates per 1,000 Live Births

An intra-state exchange of non-resident certificates between the various counties was started on January 1, 1948. Each county health department was sent photostatic copies of the birth and death certificates for residents of their county when the event occurred elsewhere. This will enable county health departments to make tabulations based on "place of residence" for an evaluation of the health conditions of the persons who reside in each particular county.

A proposed amendment to the Florida Vital Statistics Law was prepared and distributed to members of the legislature and to social and welfare agencies. This amendment would make birth records confidential and protect individuals from unnecessary disclosure of illegitimacy, adoption, or other information on this record which might prove embarrassing. It would also permit the use of a Birth Registration Card for most certification purposes. This is an attractive wallet-sized card, encased in plastic, containing only the name, date and place of birth, and birth certificate number. It is sufficient to prove age and citizenship, the purpose for which most birth certifications are needed.

BUREAU OF NARCOTICS

M. H. DOSS, R. Ph., Director

The Bureau of Narcotics is charged by law with the enforcement of all narcotic, medical, pharmacy, narcotic vehicle seizure act, registration and licensing of all drug stores, wholesale drug concerns handling narcotics, practitioners of the healing arts, and guarding of the buildings, grounds and equipment of the State Board of Health. The table of activities carried in this report is confirmed by individual case reports permanently on file in this office.

The personnel of the bureau consists of five narcotic inspectors, one of whom was off duty from August through December as he was ill, three uniformed guards, a chief clerk and a senior clerk together with a Jacksonville detective assigned to the bureau by the City. Field offices are located at Miami, Tampa and Tallahassee.

TOTAL SUMMARY OF ACTIVITIES

| | |
|---|------------|
| Total number open inspections | 1,706 |
| Total number investigations | 1,136 |
| Total number arrests | 73 |
| Total number violations corrected where no legal action was taken..... | 91 |
| Aggregate sentences imposed by the courts..... | 59 years |
| Aggregate fines imposed by the courts..... | \$1,345.28 |
| Total number defendants receiving probation, deferred or suspended sentences | 12 |
| Total number cases discharged or nolle prosequi by the courts..... | 1 |
| Total number narcotic addicts confined to State or Federal institutions for treatment | 11 |
| Total number cars seized under State Narcotic Vehicle Seizure Act..... | 1 |
| Total number cases resulting in an acquittal by jury | 1 |
| Total number miles driven | 97,478 |
| Total number bonds estreated | \$500. |

UNIFORM NARCOTIC DRUG ACT

(Chapter 398, Florida Statutes 1941)

| | |
|---|----------|
| Number arrests | 61 |
| Aggregate sentences imposed by criminal courts | 58 years |
| Aggregate fines imposed by criminal courts | \$850. |
| Number persons receiving probation, deferred, withheld or suspended sentences | 7 |
| Number cases discharged or nolle prosequi by the courts | 1 |
| Number prosecutions resulting in an acquittal | 1 |

STATE DRUG AND SIGN ACT (Pharmacy)
(Chapter 465, Florida Statutes 1941)

| | |
|---|----------|
| Number arrests | 6 |
| Aggregate fines imposed by criminal courts | \$420.28 |
| Number defendants receiving withheld sentences | 3 |
| Number drug stores or pharmacies registered for fiscal year 1948-49.... | 828 |
| Number violations corrected where no legal action was taken | 91 |
| Number pharmacies reported to Board of Pharmacy for revocation or suspension of license | 11 |

MEDICAL PRACTICE ACT
(Chapter 458, Florida Statutes 1941)

| | |
|--|--------|
| Number arrests | 6 |
| Aggregate sentences imposed by the criminal courts | 1 year |
| Aggregate fines imposed by criminal courts | \$125. |
| Number injunctions obtained in circuit court | 2 |
| Number Medical Doctors (M.D.) registered | 3,344 |
| Number Osteopathic Physicians (D.O.) registered | 437 |
| Number Naturopathic Physicians (N.D.) registered | 233 |
| Number Chiropractic Physicians (D.C.) registered | 357 |
| Number Masseurs registered | 813 |
| Number Chiropodists registered | 126 |
| Number Temporary Doctors registered | 1 |

It is recommended that an additional inspector, preferably a young man, be employed and placed in training throughout the State to replace any vacancy that might occur.

BUREAU OF FINANCE AND ACCOUNTS

FRED B. RAGLAND, Director

This Bureau is charged with all fiscal, personnel, purchasing and property control responsibilities. In June, 1948, the Purchasing and Property Section was added to the Bureau. Previously, this Section had functioned directly under the State Health Officer.

The Bureau is a service organization handling the business management of the Board. Every effort is made to efficiently and expeditiously handle to the best interests of all Bureaus, Divisions and County Health Units the payment of salaries, travel expenses, and other obligations; the personnel actions such as recruitment, employment, termination, reclassification, salary changes, leave records, efficiency reports, and training records; the purchasing by good business methods; and the control of property.

FISCAL SECTION

The financial transactions of the State Board of Health for the fiscal year ended June 30, 1948, as reflected by the records of the Bureau of Finance and Accounts are presented in the condensed tables that follow. A detailed Financial Report for the fiscal year ended June 30, 1948, has been prepared and distributed to interested parties.

In addition to funds disbursed as indicated in the following condensed tables, the State Board of Health was furnished supplies and materials and the services of a number of persons, the cost of which was borne directly by the U. S. Public Health Service, other State Departments and various local units of government within the State. The value of these services amounted to \$597,218.50, and were mainly to aid the Venereal Disease, Tuberculosis, and Malaria Control programs.

During the year the Fiscal Section processed approximately 19,500 vouchers for payment from 90 State Board of Health Funds. In liquidating all obligations of the Board, approximately 40,000 warrants to payees were handled.

Fiscal operation followed a budget plan of 101 departmental budgets. These budgets were frequently revised to meet changing situations. The majority of the revisions related to county health unit budgets primarily because a number of county health units were able to obtain increased local funds to be used in an expanded program after the initial budget was prepared.

TABLE LIV
FLORIDA STATE BOARD OF HEALTH
STATEMENT OF AVAILABLE FUNDS AND CASH OBLIGATIONS FOR THE FISCAL YEAR ENDED JUNE 30, 1948

| | Total | State Approp- riations and Authorized Fees | Local Health Unit Funds | U. S. Public Health Service | Childrens Bureau | Other |
|---|----------------|--|----------------------------|--------------------------------|---------------------|--------------|
| AVAILABLE FUNDS: | | | | | | |
| Cash Balance — July 1, 1947 | \$ 388,748.40 | \$ 19,070.37 | \$ 203,215.45 | \$ 16,067.19 | \$139,243.22 | \$ 11,152.17 |
| Receipts: | | | | | | |
| State Appropriations | 1,730,844.44 | 1,730,844.44 | | | | |
| Fees Authorized by Law | 63,505.68 | 63,505.68 | | | | |
| From Local Agencies for Local Health Units | 1,228,581.90 | | 1,228,581.90 | 936,032.66 | 380,073.84 | 61,525.57 |
| Federal Grants-in-Aid | 1,316,106.50 | | | | | |
| Private Contributions | 61,525.57 | | | | | |
| Total Available Funds | \$4,789,312.49 | \$1,813,420.49 | \$1,431,797.35 | \$952,099.85 | \$519,317.06 | \$ 72,677.74 |
| % of Total | 100% | 37.8% | 30% | 19.9% | 10.8% | 1.5% |
| Adjustment to Reflect Transfers | | —697,389.00 | 697,389.00 | | | |
| Adjusted Total Available Funds | \$4,789,312.49 | \$1,116,031.49 | \$2,129,186.35 | \$952,099.85 | \$519,317.06 | \$ 72,677.74 |
| % of Total | 100% | 23.3% | 44.5% | 19.9% | 10.8% | 1.5% |
| CASH OBLIGATIONS: | | | | | | |
| Total Operating and Non-Operating Disbursements | \$3,971,429.65 | \$ 835,050.52 | \$1,829,951.94 | \$807,329.62 | \$434,555.06 | \$ 64,542.51 |
| (See Tables LV & LVI) | | | | | | |
| Unencumbered Funds — Returnable to State | 69,749.44 | 44,080.35 | | 18,253.69 | 51,495.75 | |
| Treasury and/or Contributors | 202,121.30 | | | 126,516.54 | 31,524.41 | |
| Encumbrances, June 30, 1948 | \$4,243,300.39 | \$ 879,130.87 | \$1,829,951.94 | \$952,099.85 | \$517,575.22 | \$ 64,542.51 |
| Total Cash Obligations | | | | | | |
| % of Total | 100% | 21% | 43% | 22.5% | 12% | 1.5% |
| UNENCUMBERED FUNDS AVAILABLE FOR EXPENDITURE IN FISCAL YEAR 1949 | \$ 546,012.10 | \$ 236,900.62 | \$ 299,234.41 | \$ 00 | \$ 1,741.84 | \$ 8,135.23 |

TABLE LV
FLORIDA STATE BOARD OF HEALTH
STATEMENT OF OPERATING AND NON-OPERATING EXPENSES BY
OBJECT FOR THE FISCAL YEAR ENDED JUNE 30, 1948

| OPERATING EXPENSES | AMOUNT |
|--|----------------|
| Salaries | \$2,514,924.33 |
| Other Personal Services (Includes fees for Clinical Services and for Vital Statistics Registrars) | 115,656.19 |
| Travel Expenses, Including Subsistence and Lodging | 445,139.85 |
| Communications | 60,246.35 |
| Supplies and Materials | 278,243.50 |
| Printing, Binding and Publicity | 23,473.82 |
| Repairs, Maintenance and Alterations | 29,676.54 |
| Rents | 29,831.36 |
| Miscellaneous Payments | 24,024.47 |
| Insurance and Bonds | 16,466.21 |
| Hospital and Convalescent Care | 13,934.03 |
| Merit System | 12,720.16 |
| Outside Laundering and Cleaning | 7,899.51 |
| Drugs and Biologicals | 125,383.29 |
| Emergency Maternal and Infant Care for Eligible Servicemen's Families | 114,167.82 |
| TOTAL OPERATING EXPENSES | \$3,811,787.43 |
| CAPITAL EXPENSES | AMOUNT |
| Equipment | \$ 156,224.16 |
| Total Capital Expenses | \$ 156,224.16 |
| TOTAL OPERATING AND CAPITAL EXPENSES | \$3,968,011.59 |
| NON-OPERATING DISBURSEMENTS | |
| Transfers from Discontinued VD Projects to County Health Unit Funds | \$ 3,418.06 |
| Total Non-Operating Disbursements | \$ 3,418.06 |
| TOTAL DISBURSEMENTS | \$3,971,429.65 |

TABLE LVI
FLORIDA STATE BOARD OF HEALTH
STATEMENT OF OPERATING AND CAPITAL EXPENSES BY
PUBLIC HEALTH PROGRAM ACTIVITY FOR THE
FISCAL YEAR ENDED JUNE 30, 1948

| ACTIVITY | AMOUNT |
|--|----------------|
| Health Services to Mothers, Infants, Preschool and School Children | \$1,104,091.40 |
| Statewide Venereal Disease Control, Diagnosis and Referral of Infectious V. D. Patients to the Rapid Treatment Center..... | 674,267.48 |
| Sewage and Waste Disposal, Water Supply and Treatment, and General Public Health Engineering and Sanitation Operations | 425,778.33 |
| Statewide Mosquito, Pest Control, and Structural Pest Control Law Enforcement | 248,825.22 |
| Statewide Tuberculosis Control, X-ray Surveys and Follow-up Work | 386,992.16 |
| Vital Statistics Records and Reports | 121,707.40 |
| Cancer Control Program | 76,100.25 |
| Public Health Training Program | 61,198.86 |
| Narcotic, Drug, Medical Practice Law Enforcement | 40,426.17 |
| Mental Health Program | 21,590.76 |
| Industrial Hygiene Program | 16,244.01 |
| Merit System Operation | 12,720.16 |
| General Health Program, Education and Administration..... | 778,069.39 |
| TOTAL OPERATING AND CAPITAL EXPENSES..... | \$3,968,011.59 |

NOTE: The total operating expenses are summarized herewith as to Public Health program activity on an estimated basis since formal cost accounting by program is not maintained. The amounts designated have been determined after careful review of activity reports of County Health Units, various departments, and other fiscal data maintained in the Bureau of Finance and Accounts.

PERSONNEL OFFICE

PAUL T. BAKER

During the calendar year 1948 further steps were taken in establishing more firmly the merit system of personnel administration in the State Board of Health. Leave records were developed and maintained and periodic efficiency reports were obtained and recorded.

Records of in-service training of employees were maintained and the application of regulations governing such training was insured. All employees at State Headquarters were encouraged by the Personnel Supervisor to discuss their employment problems, if any, with him. At the prescribed times for consideration by the State Board, of salary increases, full information concerning each employee was made available to the Board in order that all employees might be treated equitably.

Careful check was made to insure that all appointments and terminations were made in accordance with the rules adopted by the State Board of Health.

The payrolls for all employees were prepared in the Personnel Office and forwarded to the State Comptroller for payment. All matters pertaining to the retirement plan were handled promptly.

During the year 1948 two new County Health Departments were organized. At the present time 62 of Florida's 67 counties are organized and operating under the Merit System.

On December 31, 1947, there were 1106 employees in the State Board of Health, exclusive of 54 Federal employees. On December 31, 1948 there were 1185 State employees and 31 Federal employees.

During the year there were 502 employments and 423 terminations among State employees.

On December 31, 1948 the merit system status of our employees was as follows:

| | |
|---------------------------------|-------|
| Permanent and Probational | 814 |
| Provisional | 139 |
| Temporary | 1 |
| Emergency | 7 |
| War Duration | 0 |
| Exempt and Part Time | 224 |
| Total | 1,185 |

During the year specifications were adopted for 5 new classes; specifications were revised for 22 classes and 4 classes were abolished.

TABLE LVII
DISTRIBUTION OF PERSONNEL AT MAIN OFFICE, BRANCH LABORATORIES AND RAPID TREATMENT CENTER DECEMBER 31, 1948

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--------------------------------|---|----|---|---|----|----|----|---|----|----|---|---|----|----|----|---|---|---|---|---|---|---|----|---|----|---|----|----|----|----|-----|-----|----|
| Administration | Physicians | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 13 |
| | Nurses | | | | | | | | | 1 | | | | | | | | | | 2 | | 1 | | | | | | | | | | 6 | 15 | |
| Central Laboratory | Dentists | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 |
| | Sanitation Personnel: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 17 |
| Graduate Engineers | Others | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 4 |
| | Others | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 10 |
| Laboratory Personnel (Technical) | Health Educators | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 51 |
| | Nutritionists | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 10 |
| Medical Social Workers | Clerical-Administrative-Fiscal | 4 | 9 | 1 | 1 | 1 | 10 | 6 | | 8 | 4 | 3 | 1 | 3 | 5 | 2 | 2 | 1 | 3 | 3 | | 1 | | | 5 | 2 | 8 | 1 | 3 | 10 | 41 | 6 | 144 | |
| | Part Time | | | | | | 1 | | | 1 | 1 | | 1 | 9 | 4 | | | | | | | | | | | | | | | | | | 19 | |
| Exempt | Others | 3 | 31 | | | | | | | 9 | 1 | | | | | | | | | | | | | | | | | | | | | | | 26 |
| | Others | 1 | 4 | | | | | | | 1 | 4 | | | | | | | | | | | | | | | | | | | | | | 5 | 44 |
| Federal Employees | Others | | | | 4 | | | | | | | | | | 8 | | | 1 | 1 | | | | | | | | | | | | | | 31 | |
| | Federal Employees | 9 | 65 | 2 | 9 | 25 | 7 | 11 | 6 | 19 | 13 | 4 | 5 | 15 | 20 | 10 | 6 | 3 | 6 | 4 | 5 | 4 | 7 | 11 | 6 | 29 | 6 | 20 | 22 | 43 | 48 | 440 | | |
| TOTAL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

TABLE LVIII
DISTRIBUTION OF PERSONNEL IN COUNTY HEALTH DEPARTMENTS, DISTRICT AND TRAINING CENTER DECEMBER 31, 1948

| | Alachua | Baker | Bay | Bradford | Brevard | Broward | Calhoun | Charlotte | Citrus | Clay | Columbia | Dade | Desoto | Dixie | Duval | Escambia | Flagler | Franklin | Gadsden | Gilchrist | Glades | Gulf |
|----------------------------------|---------|-------|-----|----------|---------|---------|---------|-----------|--------|------|----------|------|--------|-------|-------|----------|---------|----------|---------|-----------|--------|------|
| Physicians | 2 | | | | | 1 | | | | | | | | | | | | | | | | |
| Nurses | 8 | 1 | | | | 7 | | | | | | | | | | | | | | | | |
| Dentists | 1 | | | | | | | | | | | | | | | | | | | | | |
| Sanitation Personnel: | | | | | | | | | | | | | | | | | | | | | | |
| Graduate Engineers | | | | | | | | | | | | | | | | | | | | | | |
| Others | | | | | | | | | | | | | | | | | | | | | | |
| Laboratory Personnel (Technical) | 2 | 1 | 2 | 1 | 2 | 4 | 1 | | | | | | | | | | | | | | | |
| Health Educators | | | | | | | | | | | | | | | | | | | | | | |
| Nutritionists | | | | | | | | | | | | | | | | | | | | | | |
| Medical Social Workers | 6 | 1 | 2 | 1 | 1 | 3 | 1 | | | | | | | | | | | | | | | |
| Clerical-Administrative-Fiscal | 2 | | 1 | 1 | | | | | | | | | | | | | | | | | | |
| Part Time | | | | | | | | | | | | | | | | | | | | | | |
| Exempt | 1 | | 2 | | | | | | | | | | | | | | | | | | | |
| Others | | 4 | 12 | 6 | 8 | 15 | 2 | | 3 | 6 | 7 | 123 | 3 | 4 | 30 | 4 | 1 | 5 | 11 | 2 | 4 | 3 |
| TOTAL | 22 | 4 | 12 | 6 | 8 | 15 | 2 | 2 | 3 | 6 | 7 | 123 | 3 | 4 | 30 | 4 | 1 | 5 | 11 | 2 | 4 | 3 |

(a) Also Serves Clay & Union Counties
(b) Also serves Osceola County
(c) Also serves Gilchrist & Hamilton Counties

(d) One Also serves Santa Rosa County
(e) Also serves Gulf & Wakulla Counties
(f) Also serves Calhoun & Liberty Counties

TABLE LVIII (continued)
DISTRIBUTION OF PERSONNEL IN COUNTY HEALTH DEPARTMENTS, DISTRICT AND TRAINING CENTER

DECEMBER 31, 1948

| | Hamilton | Hardee | Hendry | Highlands | Hillsborough | Holmes | Indian River | Jackson | Jefferson | Lafayette | Lake | Leon | Levy | Liberty | Madison | Manatee | Marion | Monroe | Nassau | Okaloosa | Okeechobee | Orange |
|----------------------------------|----------|--------|--------|-----------|--------------|--------|--------------|---------|-----------|-----------|------|------|------|---------|---------|---------|--------|--------|--------|----------|------------|--------|
| Physicians | 1 | (g) | 1 | (h) | 4 | 1 | 2 | (i) | 1 | 1 | 1 | 1 | 1 | 1 | (j) | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Nurses | | 1 | 1 | 2 | 23 | 1 | | | | | | | | | | | | | | | | |
| Dentists | | | | | 1 | | | | | | | | | | | | | | | | | |
| Sanitation Personnel: | | | | | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 3 | 1 | | | | | | | | | |
| Graduate Engineers | | | | | 15 | | | | | | | | | | | | | | | | | |
| Others | | | | | | | | | | | | | | | | | | | | | | |
| Laboratory Personnel (Technical) | | | | | | | | | | | | | | | | | | | | | | |
| Health Educators | | | | | | | | | | | | | | | | | | | | | | |
| Nutritionists | | | | | | | | | | | | | | | | | | | | | | |
| Medical Social Workers | | | | | 24 | 1 | 1 | 1 | 1 | 1 | 2 | 3 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 4 |
| Clerical-Administrative-Fiscal | | | | | 13 | | 2 | 1 | 1 | 1 | 1 | 1 | | | | | | | | | | 2 |
| Part Time | | | | | 6 | | | | | | | | | | | | | | | | | |
| Exempt | | | | | 7 | 1 | 1 | 1 | 1 | 1 | 12 | 18 | 1 | 3 | 2 | 10 | 13 | 1 | 1 | 1 | 1 | 1 |
| Others | | | | | 94 | 4 | 4 | 6 | 4 | 4 | 2 | | | | 6 | | | | | | | 28 |
| TOTAL | 2 | 4 | 2 | 5 | 94 | 4 | 6 | 8 | 4 | 4 | 2 | 18 | 3 | 2 | 6 | 10 | 13 | 13 | 8 | 4 | 2 | 1 |

(g) Also serves Charlotte & DeSoto Counties
(h) Also serves Glades & Hendry Counties
(i) Also serves Washington County

(j) Also serves Taylor County
(k) Also serves Sarasota County
(l) Also serves Baker County

TABLE LVIII (continued)
DISTRIBUTION OF PERSONNEL IN COUNTY HEALTH DEPARTMENTS, DISTRICT AND TRAINING CENTER

DECEMBER 31, 1948

| | Osceola | Palm Beach | Pasco | Pinellas | Polk | Putnam | St. Lucie | Santa Rosa | Sarasota | Seminole | Sumter | Suwannee | Taylor | Union | Volusia | Walton | Washington | Unorganized | Counties | Training Center | TOTAL |
|----------------------------------|---------|------------|-------|----------|------|--------|-----------|------------|----------|----------|--------|----------|--------|-------|---------|--------|------------|-------------|----------|-----------------|-------|
| Physicians | 2 | 8 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | | | 2 | 46 |
| Nurses | | | | 15 | 8 | 2 | 2 | 1 | 5 | 3 | 1 | 1 | 1 | 1 | 10 | 1 | | | | 1 | 256 |
| Dentists | | | | 1 | | | | | | | | | | | | | | | | | 6 |
| Sanitation Personnel: | | | | 1 | 1 | | | | | | | | | | | | | | | | 6 |
| Graduate Engineers | | | | 12 | 10 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 4 | 2 | 1 | 2 | | 1 | 151 |
| Others | | | | 1 | | | | | | | | | | | 1 | | | | | 1 | 2 |
| Laboratory Personnel (Technical) | | | | | | | | | | | | | | | | | | | | | |
| Health Educators | | | | | | | | | | | | | | | | | | | | | |
| Nutritionists | | | | | | | | | | | | | | | | | | | | | |
| Medical Social Workers | | | | 8 | 5 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 152 |
| Clerical-Administrative-Fiscal | | | | 7 | 2 | | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 5 | 1 | 1 | 1 | 1 | 4 | 69 |
| Part Time | | | | 2 | 1 | | | | | | | | | | 8 | 1 | | | | 1 | 45 |
| Exempt | | | | 49 | 29 | 6 | 7 | 6 | 9 | 1 | 1 | 1 | 1 | 3 | 26 | 5 | | | | 10 | 43 |
| Others | | | | | | | | | | | | | | | | | | | | | |
| TOTAL | 4 | 29 | 8 | 49 | 29 | 6 | 7 | 6 | 9 | 8 | 6 | 7 | 5 | 3 | 26 | 5 | 5 | 3 | 3 | 10 | 776 |

(m) Also serves Flagler County
(n) Also serves Indian River & Okeechobee

(o) Also serves Citrus & Pasco Counties
(p) Also serves Dixie & Lafayette Counties

PURCHASING AND PROPERTY

G. WILSON BALTZELL

During the year, 2,349 requisitions were submitted to the Purchasing Agent by the various departments of the State Board of Health. Items requisitioned were supplied to the departments from stock on hand or by placing purchase orders with selected vendors to supply these items.

3,980 purchase orders were issued during the year in the total amount of \$404,031.81. Most of the orders were placed after competitive bids were submitted. However, some purchase orders were issued representing negotiated amounts such as automobile repair services, and some orders were placed for items at published State prices, such as tires and typewriters, for which no bids were secured.

It is interesting to note that purchase orders on which competitive bidding was obtained were issued in the amount of \$357,618.09. Reference to bid tabulations indicates that on these orders, the total of the low bids was \$357,618.09, and the total of the high bid was \$395,041.39, or a difference of \$37,423.30.

In addition to the purchase of routine items, this department handled the purchasing of large X-ray units for the various tumor clinics throughout the State; surgical instruments and equipment required in the cancer program; several new passenger automobiles to replace old vehicles; two panel trucks for use in the mobile dental program and the mobile cancer detection program; and surplus army buildings at the Pine Castle Army Air Base for removal to a location in Orlando for conversion into mental health clinic space, regional engineering quarters, and branch laboratory facilities.

The routine procedures of purchasing have been fairly well standardized since the Purchasing Department was created in March 1946, and during the calendar year 1948, increased emphasis was placed upon property control and inventories. Non-expendable items are now properly accounted for, a record being maintained as to classification and location. The department is now compiling complete inventories of non-expendable items in the 62 County Health Departments. This work should be completed and up-to-date early in 1949.

The State Board of Health continues to lease office space and at the present time the following space is being leased: office of the Bureau of Preventable Diseases in the Central Trucking Lines building on Pearl Street; offices of the Bureau of Tuberculosis Control and the Bureau of Maternal and Child health, on the second floor of the building at Clay and Adams Street; office space for the Bureau of Sanitary Engineering and the Division of Entomology consisting of two buildings at the old St. Johns River Shipyard. All of these locations are in Jacksonville. In addition, a small office in the Demetree Building, Tallahassee, is leased for the Regional Narcotics Inspector in that area.

BUILDINGS AND GROUNDS

The Superintendent of Buildings and Grounds, together with his maintenance personnel, have kept the buildings and grounds in good condition during 1948.

Many of the offices in the main building were re-painted during this period. Maintenance personnel are able to perform all of the electrical and plumbing work which might be required unless some major repair or alteration is necessary requiring a licensed contractor. It is interesting to note that during the year the electric meter system was altered in order to provide one large meter to replace five smaller meters previously in use. This electrical alteration resulted in a considerable savings. In the summer of 1948, it was necessary to install a booster pump on the water main in order to insure adequate water pressure in all parts of the building. Also during the year a 9,000 gallon capacity water softener was installed. The Pearl Street building was completely water-proofed by a water-proofing contracting firm.

DUPLICATING DEPARTMENT

During 1948, new equipment installed in this department included a new multilith machine, an electric drill punching machine, and a rotary perforator. This new equipment enables the department to do its work more quickly and efficiently.

It is noted that the addressograph machine in this department is being used almost constantly now for pre-addressing various mail and literature which is routinely sent to selected persons on our mailing list and the machine is also used in preparation of the monthly payrolls of the State Board of Health.

HOSPITAL LICENSING

The Hospital Licensing Act, Chapter 24091, General Laws of the State of Florida, which became effective July 1, 1947, applies only to those hospitals receiving Federal aid or aid from the U. S. Government.

The State Board of Health as the licensing agency during 1948 compiled rules, regulations and standards with respect to hospitals. These rules, regulations and standards were adopted by the State Board of Health October 23, 1948. Also during 1948 the licensing agency formulated the mechanics for inspecting and licensing of hospitals.

During 1948, only one hospital in the State became eligible for licensure under this Act, that hospital being the Suwanee County Hospital, which was constructed under the provisions of the Federal Hospital Survey and Construction Act, Public Law 725. It is interesting to note here that the first U. S. Treasury Warrant issued under the Federal Hospital Survey and Construction Act was in connection with the Suwanee County Hospital. This first U. S. Treasury Warrant was presented to the State of Florida by the Surgeon-General of the U. S. Public Health Service, Leonard A. Scheele, M.D., at ceremonies at the hospital in Live Oak, Florida, May 8, 1948. Subsequently, this hospital was completed and licensed in 1948.

We are advised by the Hospital Planning Division of the Florida State Improvement Commission, the agency designated by the Governor to carry out the construction phase of the State Hospital program in connection with Public Law 725 that the following hospitals are expected to be completed in 1949:

Duval County Hospital,
Walton County Hospital,
Bay County Hospital,
Tallahassee Memorial Hospital.

Upon completion, these hospitals, of course, will be eligible for licensure under the State Statute.